

WORK PROCRASTINATION: A SYSTEMATIC LITERATURE REVIEW OF THE FACTORS CONTRIBUTING TO TASK PROCRASTINATION IN THE PROFESSIONAL ENVIRONMENT

PENUNDAAN PEKERJAAN: TINJAUAN KEPUSTAKAAN SISTEMATIS TENTANG FAKTOR-FAKTOR YANG MEMPENGARUHI PENUNDAAN TUGAS DI LINGKUNGAN PROFESIONAL

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ABSTRACT

Work procrastination is a common phenomenon in various work environments and can have a negative impact on employee productivity, performance, and welfare. This study aims to systematically review the existing literature on the factors that contribute to task procrastination in the professional environment. Through a literature search in various academic databases, this study identified and analyzed the psychological, contextual, and individual factors that influence work procrastination. The results of the review show that factors such as anxiety, perfectionism, self-uncertainty, and low self-regulation are the main causes of procrastination of tasks. In addition, contextualities such as excessive workload, role ambiguity, and unsupportive work environments were also found to have significant contributions. The study also discusses various strategies for dealing with work procrastination, including psychological interventions and time management. These findings provide important insights for organizations and individuals in formulating more effective approaches to minimize task delays in the work environment.

Keywords: Work Procrastination, Task Procrastination, Psychological Factors, Professional Environment, Time Management, Psychological Intervention, Self-Regulation.

ABSTTRAK

Penundaan pekerjaan merupakan fenomena umum di berbagai lingkungan kerja dan dapat berdampak negatif pada produktivitas, kinerja, dan kesejahteraan karyawan. Studi ini bertujuan untuk melakukan tinjauan sistematis terhadap literatur yang ada mengenai faktor-faktor yang berkontribusi terhadap penundaan tugas di lingkungan profesional. Melalui pencarian literatur di berbagai basis data akademik, studi ini mengidentifikasi dan menganalisis faktor-faktor psikologis, kontekstual, dan individu yang mempengaruhi penundaan pekerjaan. Hasil tinjauan menunjukkan bahwa faktor-faktor seperti kecemasan, perfeksionisme, ketidakpastian diri, dan regulasi diri yang rendah merupakan penyebab utama penundaan tugas. Selain itu, konteks seperti beban kerja berlebihan, ketidakjelasan peran, dan lingkungan kerja yang tidak mendukung juga ditemukan memiliki kontribusi yang signifikan. Studi ini juga membahas berbagai strategi untuk mengatasi penundaan pekerjaan, termasuk intervensi psikologis dan manajemen waktu. Temuan ini memberikan wawasan penting bagi organisasi dan individu dalam merumuskan pendekatan yang lebih efektif untuk meminimalkan penundaan tugas di lingkungan kerja.

Kata Kunci: Penundaan Pekerjaan, Penundaan Tugas, Faktor Psikologis, Lingkungan Profesional, Manajemen Waktu, Intervensi Psikologis, Regulasi Diri.

INTRODUCTION

Work procrastination is a common phenomenon in professional environments characterized by delaying task completion despite knowing the existence of negative consequences. This phenomenon is often encountered in various work and academic environments that have a detrimental impact on the performance of individuals,

teams, and organizations as a whole (Gamst-Klaussen et al., 2019). Many factors contribute to Procrastination work, both from an individual and organizational perspective (Konopielko et al., 2019). In addition to individual factors, contextual factors such as workload and work environment also affect the rate of job delays. Overload and pressure from superiors often

contribute to procrastination as individuals feel overwhelmed and unable to manage their time effectively (Klingsieck, 2013). Research by (Sirois & Giguère, 2018) It also shows that ambiguity regarding duties and responsibilities can exacerbate procrastination issues. Therefore, it is important to consider the context of the work in understanding and addressing delays. Initial research on Work procrastination often focuses on individual psychological factors, such as anxiety, self-uncertainty, and feelings of stress (Sirois & Giguère, 2018). For example, research by Tuckman (1991) suggests that individuals who have high levels of anxiety are more likely to procrastinate on their tasks. Furthermore, a study by Ferrari & Roster (2018) Identifying that feelings of inadequacy and uncertainty can be the main drivers of job procrastination.

The psychological phenomenon known as procrastination is defined as the deliberate putting off of negative activities or habits until a later time, with the intention of avoiding them in the future (Hong et al., 2021). Psychologically, Work procrastination It is often associated with factors such as anxiety, self-uncertainty, and perfectionism. According to Sirois & Giguère (2018). Individuals who have high levels of anxiety tend to procrastinate on work due to fear of failure or imperfect results. The inability to manage these negative emotions often leads individuals to engage in procrastination of tasks as a temporary avoidance strategy. This is also in line with the findings of the Sirois & Pychyl (2013), which identifies that excessive perfectionism can make a person feel overwhelmed and end up choosing to procrastinate on a task. Next, workplace procrastination is defined as putting off work-related tasks in order to attend to

non-work-related matters while on the clock, without causing harm to one's employer, coworkers, or clients. The first kind of workplace procrastination involves putting off work for more than an hour a day without causing harm to others. The second kind, known as cyberslacking, occurs when employees pretend to be working on their computers when in reality they are engaging in costly personal activities like online shopping, social networking, and the like (Metin et al., 2016). Concerns about employees occasionally doing things unrelated to work while on the clock are a real issue for many companies.

Procrastination have been studied in different contexts, including industry (Unda-López et al., 2022)Education (Doğanülkü et al., 2021)work (Metin et al., 2016), daily life (Doğanülkü et al., 2021), and health (Unda-López et al., 2022). In a study conducted by (Metin & Asli, 2018) The authors discovered a negative connection between job engagement and procrastination among 380 full-time white-collar employees in the Netherlands. This suggests that highly committed individuals do not waste work hours on non-work related activities. Consequently, there is a negative correlation between procrastination and performance. Contextual issues, like heavy workloads, unclear roles, and lack of task management, are also important triggers. Postponing tasks. Unda-López et al. (2022) Adding that stressful work environments, such as tight deadlines and high expectations from employers, often leave individuals feeling overwhelmed, which ultimately exacerbates procrastination rates. Procrastination can also be considered an inability to self-regulate, which in turn leads to impaired work efficiency and individual goals, which require actions

and efforts to overcome them (Zhang et al., 2024).

In contrast, everyday life procrastination refers to how often people do mundane but important chores late, which varies from person to person based on their time orientation (Unda-López et al., 2022). In this realm, you can put off a variety of tasks, such as completing your income tax return, cleaning your house, playing a favorite hobby, paying a visit to your parents, responding to emails or phone calls, or even meeting up with friends (Klingsieck, 2013). In a study conducted by Tibbett & Ferrari (2015) The results, derived from three separate American adult samples, indicate that elderly people's clutter issues may originate from their tendency to put off doing routine everyday duties. This is significant because issues associated with this clutter might diminish an individual's overall contentment with life.

In recent years, there has been an increase in interest in exploring strategies to overcome work procrastination. A variety of approaches have been proposed, ranging from psychological-based interventions such as cognitive-behavioral therapy (CBT) to more practical time management techniques (Topoi & 2015, 2014). Research by (Kuemlangan et al., 2023) shows that time planning techniques and goal setting can help reduce procrastination and increase productivity. These strategies show the potential to overcome Work procrastination effectively if applied in an appropriate manner.

A comprehensive literature evaluation is necessary because of the many ways in which work procrastination affects people and businesses and because there are so many different ways to tackle this problem. Work procrastination and its

causes, effects, and solutions will be thoroughly covered in this review. Therefore, it is believed that this study will significantly aid in the creation of more effective methods of dealing with work delays and enhancing productivity and morale on the job (Klingsieck, 2013; Steel, 2007; Tuckman, 1991). This systematic review shows that Work procrastination is a complex phenomenon, involving a variety of psychological, contextual, and individual factors interacting with each other. A deeper understanding of these factors can assist organizations and individuals in formulating more effective strategies to reduce task delays and improve productivity and well-being in the workplace

Systematic Literature Review It aims to identify and analyze the factors that contribute to work procrastination, as well as their implications for employee productivity and well-being. Procrastination Work denotes intentional and unwarranted procrastination in the execution of employment responsibilities without justification. This results in distressing emotions and adverse professional experiences (Hong et al., 2021). Certain research indicate that procrastination in the workplace results from a lack of self-regulation among employees. Similarly, data indicates that personality qualities, including neuroticism and extraversion, correlate with procrastination. Simultaneously, postponing health habits results in a deferral of therapy or a delay in seeking care (Kroese & de Ridder, 2016); For instance, arranging a medical consultation or adopting health practices. A study conducted by Sirois et al. (2023) A study including 122 university students in Canada indicated that the association between procrastination and health was mediated by health practices. Moreover, elevated

stress levels associated with this behavioral style heighten the risk of illness. Indeed, continued postponement might adversely affect health state. Individuals frequently engage in procrastination at various points during their life. Some individuals frequently procrastinate, while others do so under certain circumstances (Zacks & Hen, 2018).

Given that diminished work performance outcomes are associated with procrastination, the relevant facts experimentally validate this conclusion (Metin et al., 2016), combined with diminished academic achievement and negative effects on financial matters, including high tax liabilities (Zacks & Hen, 2018). Experts typically reject the notion that procrastination may be advantageous, focusing instead on its detrimental consequences. An attribute associated with performance that operates across many predictor sets and methodologies in contrast to job satisfaction (Steel, 2007) or production efficiency (Steel & Klingsieck, 2016) creativity is aptly defined as the process of producing innovative viewpoints and practical discoveries (Klingsieck, 2013). This method enhances the probability that procrastination does not exert the same detrimental impact on creativity as it does on productivity or task efficiency. In two laboratory experiments, researchers discovered that procrastination is not inherently detrimental to the generation of creative ideas. These findings were corroborated by a field study involving a sample of 170 employees, where supervisors rated employees who procrastinate higher on the creativity scale in terms of producing novel and valuable ideas (Díaz-Morales & Ferrari, 2002). Furthermore, in the early 2000s, China recorded its first double-digit gross domestic product (GDP), and the economy has had

significant growth since that time; a primary factor is the capacity of Chinese enterprises to innovate within the dynamic corporate landscape (Kosycheva et al., 2020), (Unda-López et al., 2022)

Procrastination is defined as the act of deferring tasks intended for completion today to a later time (Konopielko et al., 2019). Nevertheless, from the inception of procrastination, the globe has undergone significant transformation. Contemporary society, characterized by escalating demands to perform diverse responsibilities and adhere to numerous deadlines, presents us with a growing array of obligations susceptible to postponement; additionally, the current media-saturated environment offers unprecedented opportunity for procrastination (Reinecke et al., 2018).

RESEARCH METHOD

SLR is a comprehensive and systematic method for collecting and analyzing data from various sources, so as to provide in-depth and evidence-based insights in various fields of research. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is a recommended reporting guideline to improve the transparency and quality of SLR reporting. The four phases in the implementation of PRISMA include: identification, screening, feasibility, and inclusion. During the identification phase, a comprehensive search was conducted across multiple databases to gather all potential studies relevant to the research question (Unda-López et al., 2022). The first stage (identification) is carried out by searching for a database of articles that match the research question. The database of articles used is through Scopus with the keywords "Work Procrastination" or "Task Avoidend" or

"Postponed Task" or "Work Avoidance". These keywords are used for all types of articles without any restrictions. Using this keyword, 243 data from scopus were obtained. Before going through the screening process, 63 data was deleted because they were not article data. So that it gets 180 articles. The second stage is the screening stage which includes articles that use English. So that 33 articles that do not use English are

eliminated. The results of this screening obtained 148 articles that will pass the next stage. The last stage is to apply the inclusion criteria where in this study the inclusion criteria used are accessible articles, have the same meaning as "Work Procrastination" and are downloaded through Scopus as many as 9 articles. So that the articles included in the SLR analysis are 9 articles, both Q1 and Q2.

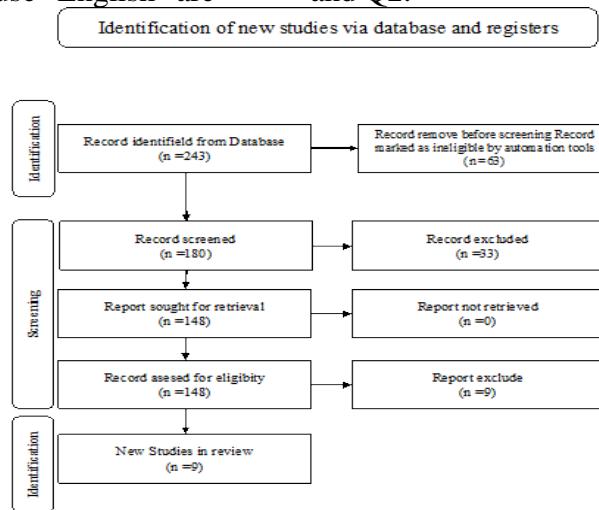


Figure 1. PRISMA Framework

RESULTS AND DISCUSSIONS

Figure 2 shows the number of publications related to the Work Procrastination variable that have been carried out from 2020 to 2024 currently. This research limits articles published in the last 5 years from 2009 to 2024 and only focuses on the ICT and Creative industries and outside health.

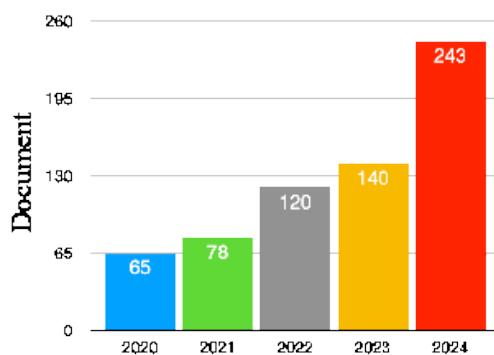


Figure 2. Number of PIA Publications from 2020 to 2024

Figure 2 shows that the country of publication related to the Work Procrastination variable has been carried out from 2020 to 2024 with the top 5 research data countries in America, China, the UK, Iran, Germany, and the United States. This research is more from China, which is as many as 5 articles.

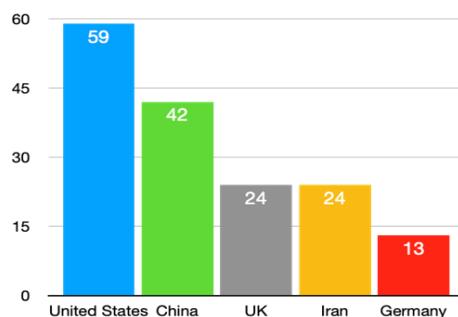


Figure 3. Number of Work Procrastination Publications between 2020 and 2024 by Country

Development of Positive Intergenerational Affect (PIA) Theory

In conducting a literature analysis, all articles are studied to obtain the

necessary information. The following is a list of articles (literature) that are further analyzed in depth:

Table 1. List of analyzed articles (literature)

Research	Heading	Publisher
Metin et al. (2018)	Correlates of procrastination and performance at work: The role of having "good fit"	Journal of Prevention and Intervention in the Community
Metin et al. (2016)	Measuring procrastination at work and its associated workplace aspects	Personality and Individual Differences
Song et al. (2024)	Predictive analysis of college students' academic Procrastination behavior based on a decision Tree Model	Humanities & Social Sciences Communications
Sirois & Biskas (2024)	Procrastination and Health in Nurses: Investigating the Roles of Stress, Health Behaviours and Social Support	International Journal of Environmental Research and Public Health
Ferari & Roaster (2017)	Delaying Disposing: Examining the Relationship between Procrastination and Clutter across Generations	Curr Psychol
Klincsiek (2013)	Procrastination in Different Life-Domains: Is Procrastination Domain Specific?	Curr Psychol
Kroese & Ridder (2023)	Health behaviour procrastination: a novel reasoned route towards self-regulatory failure	Health psychology Review
Wang & Zong (2023)	Relationship between employees' perceived illegitimate tasks and their work procrastination behavior: Role of negative emotions and paternalistic dimensions	Hell
Unda-López et al. (2022)	Procrastination during the COVID-19 Pandemic:	Behavioral Sciences

Differences in Methodology

The research methodology used in the article has differences that can be outlined in the following table:

Table 2. Differences in research methods used

Research	Methodology	Sample Population
Metin et al. (2018)	<ul style="list-style-type: none"> ▪ Structural equation model analyzes 380 employees of the Dutch self-reports office. ▪ the construct's validity (Study 1), and (c) provide empirical evidence of the association between workplace factors and procrastination, encompassing workplace characteristics, boredom, and counterproductive work behaviors in two distinct populations. ▪ Study 2 further corroborates this instrument by analyzing its correlation with other ideas. Structural equation modeling utilizing data from individuals from two distinct cultural nations 	
Metin et al. (2013)		<ul style="list-style-type: none"> ▪ 384 respondents Netherlands ▪ 433 Dutch and Turkish respondents

Song et al. (2024)	<ul style="list-style-type: none"> This research employs SPSS 26.0 for descriptive statistical analysis and Modeler 18.0 for decision tree model analysis. Descriptive statistics are employed to examine the frequency distribution and variations in the observed data. 	776 college students from the Guangxi Zhuang
Sirois & Biskas (2024)	<ul style="list-style-type: none"> Quantitative with latent moderated SEM method is used for the creation of interaction terms 	<p>A total of 597 nurses and intern nurses assessed chronic procrastination, stress, health behaviors, social support, and self-health evaluations.</p>
Ferari & Roaster (2017)	<ul style="list-style-type: none"> Hierarchical linear regression reveals that behavioural delays contribute significantly to the growing percentage of variance described in the problem of chaos across generational groups in a separate series of analyses. 	<p>An online survey was conducted among college students (mean age = 21), young individuals sourced via Amazon's Mechanical Turk (MTurk; mean age = 31), and elderly adults recruited with support from the Institute for Challenging Disorganization (mean age = 54).</p>
Klincsieck (2013)	<ul style="list-style-type: none"> Confirmatory factor analysis (CFA) and average rate difference analysis revealed that delays are specific, but not so much. 	260 students
Kroese & Ridder (2023)	<ul style="list-style-type: none"> Quantitative with latent moderated SEM methods is used for the creation of interaction terms. 	452 Respondents
Wang & Zong (2023)	<ul style="list-style-type: none"> Quantitative with latent moderated SEM methods is used for the creation of interaction terms. 	325 respondents
Unda-López et al. (2022)	<ul style="list-style-type: none"> Quantitative with latent moderated SEM methods is used for the creation of interaction terms. Bootstrapping with 20,000 replications for confidence interval calculation. 	275 respondents

Differences in Data Analysis

Most studies use Structural Equation Modeling (SEM) to analyze the relationships between variables. However, there are also those that use hierarchical linear regression and confirmatory factor analysis (CFA). The sample population used is very diverse, ranging from office employees, students, to nurses. The number of samples also varied significantly. Although the main focus was on procrastination, other variables studied were also diverse, such as workplace characteristics, boredom, counterproductive work behaviors,

stress, social support, and personal health. The instruments used to measure variables also vary, although some studies use the same instruments or modifications of existing instruments. Although all studies focus on delay, the causative factors emphasized vary. Some studies emphasize internal factors such as individual characteristics, while others focus more on external factors such as the work environment or social support. The impact of procrastination studied also varies, ranging from decreased work performance to mental health problems. Several studies have

found that there is a moderation effect of other variables on the relationship between independent and dependent variables. For example, stress can moderate the relationship between social support and procrastination.

Differences in Research Results

Research (Metin et al., 2016) (Metin & Asli, 2018) Explaining that these two studies focus on procrastination at work. First research (Metin & Asli, 2018) Investigate the correlation between procrastination and work performance, as well as the role of "good fit" in reducing procrastination. (Metin et al., 2016) focus more on the measurement of procrastination in the workplace and its relationship to personality and individual aspects. (Song et al., 2024) This study used a decision tree model to predict academic procrastination behavior in college students (Sirois & Biskas, 2024). This study investigated the relationship between procrastination, stress, health behaviors, and social support in nurses.

Ferrari & Roster (2018) This study examines the relationship between postponement and clutter across generations. Klingsieck (2013) Investigate whether procrastination is domain-specific, meaning whether a person is procrastinating in all aspects of life or only in certain domains. Kroese & de Ridder (2016) The study proposes a new model to explain why people delay healthy behaviors. Wang & Zong (2023) This study investigated the relationship between tasks perceived as unfair, negative emotions, paternalistic dimensions, and procrastination behaviors in the workplace. Unda-López et al. (2022) This study investigated the phenomenon of delay during the COVID-19 pandemic. These studies identified a variety of factors that can cause procrastination, such as stress,

personality characteristics, work environment, and perception of tasks. Procrastination not only impacts academic and job performance, but also on mental and physical health. These studies investigated delays in a variety of contexts, such as the workplace, daily life, and during pandemics. These studies use a variety of methods, including surveys, quantitative data analysis, and statistical models. For a more in-depth analysis, we need to look at the raw data and analysis methods used in each study. However, based on the information available.

Work Procrastination is influenced by various interrelated factors. Procrastination can have a negative impact on various aspects of life. More studies are trying to understand this phenomenon from various points of view. Questions for further Research are:

1. What are the cognitive and emotional processes that underlie procrastination behavior?
2. What are some effective interventions to overcome procrastination?
3. Are there significant individual differences in the tendency to procrastinate?
4. Are there cultural differences in the way people view and deal with procrastination?

Future Research

Based on the results of the research that has been presented, there are several potential directions for future research related to Work procrastinations, namely for the next researcher, it is necessary to carry out the cognitive and emotional processes that underlie procrastination behavior. In addition, effective interventions are needed to overcome Work procrastinations. In addition, the need for a significant difference in individual respondents in the propensity for Work procrastinations. In addition,

the researcher further needs to look at the context of Culture, because there are cultural differences in the way people view and deal with Work Procrastinations.

CONCLUSION

The study highlights the importance of cross-generational interactions in the workplace, specifically focusing on the knowledge-seeking behaviors of older employees than their younger counterparts. It was found that interactions like these can increase the motivation of older workers to continue working by providing valuable learning opportunities, which are crucial for their employability. However, the impact of this knowledge quest is still small; This can be beneficial or detrimental depending on the older employee's positive feelings towards intergenerational relationships. This study used hierarchical multiple regression analysis to assess the impact of positive contact with young and old workers, revealing that appreciation of these interactions plays an important role in determining the outcomes of knowledge exchange between age groups. Therefore, fostering a positive intergenerational work environment is essential to maximize the benefits of knowledge sharing and increase employee motivation overall.

REFERENCES

Doğanükü, H. A., Korkmaz, O., Griffiths, M. D., & Pakpour, A. H. (2021). Fear of COVID-19 lead to procrastination among Turkish university students: The mediating role of intolerance of uncertainty. *BMC Psychology*, 9(1), 1–9. <https://doi.org/10.1186/s40359-021-00681-9>

Ferrari, J. R., & Roster, C. A. (2018). Delaying Disposing: Examining the Relationship between Procrastination and Clutter across Generations. *Current Psychology*, 37(2), 426–431. <https://doi.org/10.1007/s12144-017-9679-4>

Francisco Díaz-morales, J., & Ferrari Joseph R Cohen, J. R. (2002). Indecision and Avoidant Procrastination: The Role of Morningness-Eveningness and Time Perspective in Chronic Delay Lifestyles. *The Journal of General Psychology*, 122(4), 228–240.

Gamst-Klaussen, T., Steel, P., & Svartdal, F. (2019). Procrastination and personal finances: Exploring the roles of planning and financial self-efficacy. *Frontiers in Psychology*, 10(APR), 1–10. <https://doi.org/10.3389/fpsyg.2019.00775>

Hong, J., Lee, Y., & Ye, J. (2021). Procrastination predicts online self-regulated learning and online learning ineffectiveness during the coronavirus lockdown. *Personality and Individual Differences*, 174(January), 1–9. <https://doi.org/10.1016/j.paid.2021.110673>

King, S. P., & Bryant, F. B. (2017). The Workplace Intergenerational Climate Scale (WICS): A self-report instrument measuring ageism in the workplace. *Journal of Organizational Behavior*. <https://doi.org/10.1002/job.2118>

Klingsieck, K. B. (2013). Procrastination in Different Life-Domains: Is Procrastination Domain Specific? *Current Psychology*, 32(2), 175–185. <https://doi.org/10.1007/s12144-013-9171-8>

Konopielko, L., Kochanski, M., & Wozniak, K. (2019). Economics of

Procrastination: The Case of EU Grants. *European Research Studies Journal, XXII*(Issue 4), 544–557.
<https://doi.org/10.35808/ersj/1528>

Kosycheva, M. A., Tuzhba, T. E., Gaydamashko, I. V., & Yesaulova, K. S. (2020). Influence of poor digital competence on procrastination of university teachers. *ACM International Conference Proceeding Series*, 73–77.
<https://doi.org/10.1145/3416797.3416832>

Kroese, F. M., & de Ridder, D. T. D. (2016). Health behaviour procrastination: a novel reasoned route towards self-regulatory failure. *Health Psychology Review*, 10(3), 313–325.
<https://doi.org/10.1080/17437199.2015.1116019>

Kuemlangan, B., Amidjogbe, E. R., Nakamura, J., Tomassi, A., Hupperts, R., Bojang, B., & Amador, T. (2023). Enforcement approaches against illegal fishing in national fisheries legislation. *Marine Policy*, 149(January), 105514.
<https://doi.org/10.1016/j.marpol.2023.105514>

McConatha, J. T., Kumar, V. K., & Magnarelli, J. (2022). Ageism, Job Engagement, Negative Stereotypes, Intergenerational Climate, and Life Satisfaction among Middle-Aged and Older Employees in a University Setting. *International Journal of Environmental Research and Public Health*, 19(13).
<https://doi.org/10.3390/ijerph19137554>

Metin, K., & Asli, K. (2018). Relationship between Organizational Commitment and Work Performance: a Case of Industrial Enterprises. *Journal of Economic and Social Development (JESD)*, 5(1), 1–11.

Metin, U. B., Taris, T. W., & Peeters, M. C. W. (2016a). Measuring procrastination at work and its associated workplace aspects. *Personality and Individual Differences*, 101, 254–263.
<https://doi.org/10.1016/j.paid.2016.06.006>

Metin, U. B., Taris, T. W., & Peeters, M. C. W. (2016b). Measuring procrastination at work and its associated workplace aspects. *Personality and Individual Differences*, 101, 254–263.
<https://doi.org/10.1016/j.paid.2016.06.006>

Pfrombeck, J., Burmeister, A., & Grote, G. (2024). Older workers' knowledge seeking from younger coworkers: Disentangling countervailing pathways to successful aging at work. *Journal of Organizational Behavior*, 45(1), 1–20.
<https://doi.org/10.1002/job.2751>

Reinecke, L., Meier, A., Aufenanger, S., Beutel, M. E., Dreier, M., Quiring, O., Stark, B., Wölfling, K., & Müller, K. W. (2018). Permanently online and permanently procrastinating? The mediating role of Internet use for the effects of trait procrastination on psychological health and well-being. *New Media and Society*, 20(3), 862–880.
<https://doi.org/10.1177/1461444816675437>

Sirois, F. M., & Biskas, M. (2024). Procrastination and Health in Nurses: Investigating the Roles of Stress, Health Behaviours and Social Support. *International Journal of Environmental*

Research and Public Health, 21(7), 898.
<https://doi.org/10.3390/ijerph21070898>

Sirois, F. M., & Giguère, B. (2018). Giving in when feeling less good: Procrastination, action control, and social temptations. *British Journal of Social Psychology*, 57(2), 404–427.
<https://doi.org/10.1111/bjso.12243>

Sirois, F. M., Stride, C. B., & Pychyl, T. A. (2023). Procrastination and health: A longitudinal test of the roles of stress and health behaviours. *British Journal of Health Psychology*, 28(3), 860–875.
<https://doi.org/10.1111/bjhp.12658>

Sirois, F., & Pychyl, T. (2013). Procrastination and the Priority of Short-Term Mood Regulation: Consequences for Future Self. *Social and Personality Psychology Compass*, 7(2), 115–127.
<https://doi.org/10.1111/spc3.12011>

Song, P., Liu, X., Cai, X., Zhong, M., Wang, Q., & Zhu, X. (2024). Predictive analysis of college students' academic procrastination behavior based on a decision tree model. *Humanities and Social Sciences Communications*, 11(1), 1–14.
<https://doi.org/10.1057/s41599-024-03300-1>

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133(1), 65–94.
<https://doi.org/10.1037/0033-295X.133.1.65>

Steel, P., & Klingsieck, K. B. (2016). Academic Procrastination: Psychological Antecedents Revisited. *Australian Psychologist*, 51(1), 36–46.
<https://doi.org/10.1111/ap.12173>

Tibbett, T. P., & Ferrari, J. R. (2015). The portrait of the procrastinator: Risk factors and results of an indecisive personality. *Personality and Individual Differences*, 82, 175–184.
<https://doi.org/10.1016/j.paid.2015.03.014>

Topoi, D. R.-, & 2015, U. (2014). René Descartes's Meditations on First Philosophy. In *Springer* (Vol. 34, Issue 2). Kluwer Academic Publishers.
<https://doi.org/10.1007/s11245-014-9270-7>

Tuckman, B. W. (1991). The development and concurrent validity of the procrastination scale. *Educational and Psychological Measurement*, 51(2), 473–480.
<https://doi.org/10.1177/0013164491512022>

Unda-López, A., Osejo-Taco, G., Vinuela-Cabezas, A., Paz, C., & Hidalgo-Andrade, P. (2022). Procrastination during the COVID-19 Pandemic: A Scoping Review. *Behavioral Sciences*, 12(2).
<https://doi.org/10.3390/bs12020038>

Wang, H., & Zong, G. (2023). Relationship between employees' perceived illegitimate tasks and their work procrastination behavior: Role of negative emotions and paternalistic dimensions. *Heliyon*, 9(4), e14984.
<https://doi.org/10.1016/j.heliyon.2023.e14984>

Zacks, S., & Hen, M. (2018). Academic interventions for academic procrastination: A review of the literature. *Journal of Prevention*

and Intervention in the Community,
46(2), 117–130.
<https://doi.org/10.1080/10852352.2016.1198154>

Zhang, H., Liu, J., & Chen, J. (2024).
The Double-Edged Sword Effect
of Performance Pressure on
Employee Boundary-Spanning
Behavior. *Journal of Chinese
Human Resources Management*,
15(3), 86–103.
<https://doi.org/10.47297/wspchrm>
WSP2040-800507.20241503