

Assessing The Impact Of Procrastination On Workplace Efficiency And Employee Performance

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Abstract

Background: Procrastination with self-regulation, motivation, and emotional control as its underlying causes is a psychological issue, in addition to being a mere time management problem (Metin et al., 2016). Procrastination at work takes many forms, like employees extending deadlines, postponing their assignments, or instead of their primary responsibilities, focussing on unimportant activities. Procrastination is a serious issue that can hinder organisational success aside from being a personal struggle for employees. Organisations can boost outcomes for performance, promote a more dynamic and productive work setting, and improve employee well-being by employing targeted strategies and interventions to address procrastination. This study's main goal is to assess procrastination and how it affects efficiency at work and the performance of an employee at work, with an emphasis on finding the critical elements that influence this habit and its effects in organisational contexts.

Material and Method: This research is based on secondary data. The qualitative research is done using articles which are published in academic journals of repute. The care is taken to refer only latest articles unless the article is seminal or of great importance.

Results: The results indicate that procrastination significantly hampers work performance and engagement, driven by psychological factors like anxiety, environmental distractions, and organizational shortcomings such as unclear goals. Addressing these factors through engagement strategies, clear objectives, and economic incentives can reduce procrastination, leading to improved productivity and a more motivated workforce.

Conclusion: Procrastination negatively impacts performance, work engagement, and productivity. Addressing it requires understanding psychological, environmental, and organizational factors. Enhancing work engagement and clear goals, reducing distractions, and providing economic incentives can mitigate procrastination. By focusing on these aspects, organizations can boost productivity and foster a more efficient, motivated workforce.

Keywords: Procrastination; Work Engagement; Productivity; Psychological Factors; Economic Incentives.

Date of Submission: 26-09-2024

Date of acceptance: 06-10-2024

I. Background And Rationale

Due to its pervasive tendency, procrastination adversely affects people in a variety of circumstances. However, since performance and productivity are vital at the workplace, procrastination is particularly harmful in this regard (Asio, 2021). According to Steel et al. (2022), procrastination is the deliberate delay of a planned activity regardless of the possibility of unfavourable outcomes. At its core, procrastination with self-regulation, motivation, and emotional control as its underlying causes is a psychological issue, in addition to being a mere time management problem (Metin et al., 2016). Procrastination at work takes many forms, like employees extending deadlines, postponing their assignments, or instead of their primary responsibilities, focussing on unimportant activities (Steel et al., 2022). Task aversion, fear of failing, or even perfectionism can be the root causes of this behaviour (Steel et al., 2022). Procrastination is a systemic issue at the workplace that can drastically alter organisational outcomes and is not just a personal problem, despite the underlying cause. Procrastination is becoming more common in professional settings, which has sparked interest in how employee performance and efficiency are affected by this behaviour at the workplace (Chauhan et al., 2020).

The influence of procrastination on productivity, both directly and indirectly, makes it imperative to study it in the workplace. The immediate result of employee procrastination is a decrease in the amount of time available to do tasks, causing hurried work that produces lower-quality outcomes or missed deadlines (Amit et al., 2021). A single task's delay can cause delays in other tasks, due to which it not only affects the performance of the individual but also negatively affects team dynamics and overall project timelines. Beheshtifar et al. (2011) wrote that chronic procrastination is also a source of increased stress levels for both the procrastinator and their coworkers, who may feel pressured to make up for the lost productivity. This kind of attitude can undermine team trust, lower morale among employees, and increase turnover rates in the long run. Furthermore, due to reduced productivity resulting in lowered profitability for the organisations, giving them a competitive disadvantage, the overall economic cost of procrastination is significant for them (Amit et al., 2021). Developing successful

interventions therefore requires an understanding of the mechanisms underlying procrastination and how it affects productivity at work. Besides mere task completion, procrastination has an impact on performance. Lowered satisfaction at work, a lack of engagement, and a decline in overall job performance are frequently associated with procrastination (Metin et al., 2018). Burnout is likely to be experienced by employees who frequently procrastinate because they are under ongoing tension and mental exhaustion to meet deadlines and feel guilty about delaying work (Arenas et al., 2022).

The frequent behaviour of procrastination may take people away from career advancement opportunities, skill development, or other growth-related activities, all of which are detrimental to professional development (Vveinhardt & Sroka, 2022). Procrastination deprives the organisation of potential talent and innovation in addition to hampering the individual's career progression (Uysal & Yilmaz, 2020). Furthermore, procrastination can inhibit creativity and problem-solving in settings where these skills are valued by reducing the amount of time available for in-depth analysis and experimentation (Vveinhardt & Sroka, 2022). As a result, procrastination is a serious issue that can hinder organisational success aside from being a personal struggle for employees. Organisations can boost outcomes for performance, promote a more dynamic and productive work setting, and improve employee well-being by employing targeted strategies and interventions to address procrastination.

II. Introduction To Procrastination

The act of delaying or postponing activities is termed as procrastination. The term originates from the Latin word 'Procrastinatus', which is derived from the words 'Pro' and 'crastinus', which respectively indicate 'for directed' and 'of tomorrow' (Sadykova, 2016). Scholars that are curious about why people postpone off work even when they are aware of the negative repercussions of doing so have shown interest in this area. Sadykova (2016) defined procrastination as the deliberate and irrational act of planned postponement that frequently causes important or urgent tasks to be delayed.

According to Sandhu and Gautam (2022), the act of procrastination involves more than just putting off a task; it also includes the anxiety and tension that come with it, making the problem potentially more severe. Sadykova (2016) claims that procrastination at its core is an irregular behaviour that frequently involves delaying tasks that the person finds challenging or undesirable. Procrastination is defined as the postponement of a significant task without any logical reason following the prior decision of an individual to complete it and possesses the ability to accomplish the task by Duru and Balkis (2014). As per this definition, procrastination includes a deeper psychological struggle rather than just time management or prioritisation, thus highlighting the irrational nature of the act. Procrastination is defined by Sadykova (2016) as the voluntary and irrational delaying of tasks. In addition to being a behavioural issue, the tendency to delay tasks is also a cognitive one, where an individual, even after being aware of the potential negative consequences, intentionally postpones tasks. When people are unable to complete tasks on time, people with this enduring tendency of procrastination feel stuck and experience feelings of inadequacy, remorse, and failure, resulting in a never-ending loop of stress and anxiety (Beheshtifar et al., 2011).

A range of emotional and psychological repercussions accompany procrastination. People feel temporarily relieved or at ease when they engage in procrastination because they believe putting off the work will improve their quality of life. Negative feelings of anxiety, regret, and stress replace this temporary comfort (Deniz, Traş, & Aydoğan, 2009). Procrastination can have physiological effects on top of affecting an individual's mental health as it carries a heavy emotional cost resulting in tension and anxiety. As per Akbay and Gizir (2010), low self-efficacy, or the belief that one doubts themselves to finish activities, is linked to procrastination, due to which the performance and productivity of an individual is reduced. An individual's tendency to procrastinate multiplies when this continuous cycle of postponement and regret creates a feeling of inadequacy and failure.

Several typologies can be used to understand the concept of procrastination. Passive procrastinators and active procrastinators are the two types of people that procrastinate as categorised by Chun Chu and Choi (2005). Passive procrastinators are those individuals who find it difficult to formulate decisions and carry them out swiftly as a result, even when they do not possess an innate cognitive tendency to put off work and postpone duties and responsibilities (Chun Chu and Choi, 2005). The cause of inaction in these individuals is the feeling of paralysis due to the pressure to make a decision. Active procrastinators, on the other hand, are people who consciously choose to put off accomplishing their tasks and focus on other things despite not finding it difficult to make decisions (Chun Chu and Choi, 2005). Those who actively procrastinate do so because they think that working under pressure will improve their performance; hence, active procrastination is more strategic than passive procrastination. The emotional and behavioural consequences of both types of procrastination are the same despite these differences.

According to Aydoğan and Özbay (2012), the dimensions of behaviour and emotion should be used to study procrastination. When someone becomes aware of their procrastinating behaviour, they may experience feelings of inadequacy, self-refusal, humiliation, guilt, deception, anxiety, and panic in the emotional dimension. These feelings have the potential to start a vicious cycle that enhances the likelihood of procrastination, as

awareness of procrastination increases emotional distress (Duru & Balkis, 2014). The discrepancy between a person's intentions and their actual action is known as the cognitive dimension of procrastination. Tension and concern rise as a result of this cognitive dissonance caused by this inconsistency where the individual is aware of the difference between their intention and action.

It can be concluded that procrastination encompasses a range of behavioural, emotional, and cognitive factors influencing a person's well-being and productivity, in addition to a mere delay in tasks, as it is a complex process. Although postponing activities initially may seem harmless or even advantageous, it can cause tension, worry, a lowered sense of self-efficacy, and severe other consequences. Creating methods to address procrastination at the individual and organisational levels requires an understanding of its various forms and aspects. In addition to useful time management techniques, assessing procrastination has to deal with the underlying emotional and cognitive causes of this ubiquitous tendency.

III. Research Aim And Objectives

This study's main goal is to assess procrastination and how it affects efficiency at work and the performance of an employee at work, with an emphasis on finding the critical elements that influence this habit and its effects in organisational contexts.

The research objectives are as follows:

- a) To evaluate the link between efficiency at work and procrastination, with a key focus on how overall productivity, job completion times, and work quality are impacted by procrastination.
- b) To determine how people are influenced by the organizational, psychological, and environmental factors to procrastinate that in various job categories and industries
- c) To assess economic impact of procrastination.

IV. Significance Of The Study

The widespread problem that affects both individual employees and organisations is addressed by this study, and hence it is of significant importance. Studies like that of Amit et al. (2021) showed that procrastination has a major effect on employee performance and workplace efficiency despite being overlooked as a minor or personal problem. Through an analysis of how procrastination affects productivity, lowers the quality of work, and results in missed deadlines—all of which can have major operational and financial repercussions for businesses—this research offers important insights into how procrastination affects these critical aspects of organisational success. Furthermore, the root causes of workplace procrastination can be identified by this research. Research reveals that a more comprehensive understanding of why employees delay and how these habits vary throughout industries and job types is offered by the psychological, environmental, and organisational factors that contribute to procrastination (Chauhan et al., 2020). Efficient interventions and work conditions can be established by managers and HR professionals to reduce procrastination and increase overall productivity with this knowledge.

This study can significantly understand the long-term effects of chronic procrastination on employee well-being, job satisfaction, and career progression. Procrastination not only affects the mental health of an employee by causing increased stress, anxiety, and a sense of failure, but also contributes to higher turnover rates and decreased employee engagement (Arenas et al., 2022; Beheshtifar et al., 2011). A more motivated, efficient, and productive workforce can be achieved by addressing these issues, as this research offers practical recommendations for organisations to support their employees in overcoming procrastination. For academics and professionals working in the fields of organisational behaviour and human resource management, this research is an invaluable tool.

V. Procrastination, Performance, And Work Engagement

The work environment has become highly competitive and fast-paced in the recent times. This has brought more attention to the study of procrastination, performance, and work engagement. All these elements are linked with each other, and they often influence each other. Their influence on each other can either enhance the success of an organisation or hinder it (Metin et al., 2018). The voluntary delay of an activity, despite knowing that it is not a good idea to delay it, is called Procrastination. This significantly impacts the performance and overall work engagement of an employee. Viswesvaran and Ones (2000) believe that work performance is the behaviour of an employee that aligns with organisational goals and helps the employee in contributing towards these goals. The performance of employees tends to suffer when they engage in non-work-related activities like procrastinating on their work by taking a lot of breaks, browsing social media, or anything else online, during their work hours (Sandhu & Gautam, 2022; Hutmanová et al., 2022). In this section, the potential relationship between work engagement, procrastination, and performance, is discussed, with the aim of providing a better understanding of the interaction of these factors with each other, in a work environment.

Work Engagement and Performance

Work engagement is a state of mind that is positive, fulfilling and work-related. It is highly characterised by vigour, dedication, and absorption. In the field of occupational psychology, Work engagement has been popularly studied. It has been researched as a part of the positive psychology paradigm, which has gained more attention in the last 20 years (Bakker et al., 2008). Employees who are highly energetic towards working and have mental resilience (vigour), are completely involved in their work with high enthusiasm and pride (dedication), and are fully concentrated and happily engrossed in their work tasks (absorption) are considered to be engaged employees (Uysal & Yilmaz, 2020). Such employees tend to be more productive, healthy and highly satisfied with their job.

According to many researches like Uysal and Yilmaz (2020), work engagement has been proved to be a powerful predictor of both individual and organisational outcomes. For example, employees with high work engagement immerse completely in their work, which positively their productivity and creativity at work. Engaged employees are also more confident and show optimism, which drives their work motivation and produces positive outcomes at work (Cropanzano & Wright, 2001). Engaged employees tend to be healthier as they report less health problems, which is an important aspect because employee well-being directly affects organisational performance (Schaufeli et al., 2008).

Many longitudinal studies prove that along with boosting task performance (for example- timely work submission, not missing deadlines), work performance also boosts contextual performance. Contextual performance includes the behaviours and attitudes that can be seen in the organisational environment, like helping others and working beyond scope (Bakker et al., 2012). Engaged employees tend to be more helpful towards new colleagues and assist them with job-related problems, which fosters a supportive work environment and positively impacts the whole organisation (Bakker et al., 2012). Therefore, work engagement and performance have a cyclical and self-reinforcing relationship. Better work engagement levels result in better performance. Moreover, better performance boosts employee engagement as the employees feel highly satisfied and motivated with a sense of achievement. Organisations that focus on work engagement when it comes to their employees will witness better employee performance as well as better organisational effectiveness.

Work Engagement and Procrastination

Nguyen et al. (2013) mentions that procrastination in the workplace is considered to be a self-regulatory failure, as in this case, employees delay the work that needs to be done in favour of less productive yet more gratifying activities. Procrastination can be harmful for the employee as well as the organisation as it not only decreases the productivity, but may also lead to missed deadlines, subpar work quality, and higher stress levels. It can be said that procrastination at work happens due to fatigue, psychological detachment, and job-related stress (DeArmond et al., 2014). Procrastination also has a long-term effect on success and financial wellbeing of an employee as it associated with lower income (Nguyen et al., 2013).

Procrastination in the workplace can be done in different forms, and its traditional measures tend rely on more on general or academic scales. This doesn't capture all the nuances of procrastination. Due to such a gap, Metin et al. (2016) created a Procrastination at Work Scale (PAWS) which helped in measuring as well as understanding particular behaviours in the context of procrastination in the workplace. Two major forms of procrastination at work were highlighted by them- soldiering and cyberslacking. When an employee avoids work through non-technology-related means, like long breaks, daydreaming etc. without the intention of shifting his/her work to another employee, it is known as Soldiering. However, in Cyberslacking, mobile technology is used, where internet is used for personal purposes like using social media or personal entertainment during the work hours (Garrett & Danziger, 2008). Cyberslacking is more prevalent as many studies highlight that employees tend to spend up to 30% of their day engaged in online activities which aren't related to their work. Moreover, about 80% of the employees admit that they use internet during work hours for their personal purposes (Eddy et al., 2010).

Employees can engage in non-work related activities due to a of positive emotions and engagement at work. They use these activities as a form of distraction (Metin et al., 2016). Employees who do not feel excited about their work or feel positively stimulated by it can feel like getting bored, which decreases their commitment to work. This makes them more likely to showcase procrastination related behaviours. Such employees actively seek escapes and distractions from work, which generally manifest in the form of internet usage for activities like instant messaging or longer breaks (Metin et al., 2016). In contrast, employees who love their work and are stimulated by it, tend to be more resilient, and active at work, which reduces their need to take up non-work related activities. Therefore, it can be said that procrastination and work engagement are negative related to each other within the context of professional settings.

Procrastination and Performance

Literature lacks research in the context of procrastination and its effect on performance outcomes, however, many valuable insights can still be drawn from academic procrastination literature. Academic procrastination is negatively related to conscientiousness (Asio, 2021). It is a personality trait that reflects diligence, organisation, and dependability. According to Steel (2007), conscientiousness is positively related with academic performance. This means that procrastination reduces the chances of success in academic settings. Procrastination by students can result in them getting lower grades and more stressed, which shows that being in a habit of delaying tasks can have tangible negative effects on academic performance.

Even in the workplace, similar patterns can be seen. Employees who repeatedly procrastinate their work spend more of their work hours on non-work-related activities, which reduces their ability to complete all their work on time (Uysal & Yilmaz, 2020). Such employees are unable to meet deadlines, and work longer to complete the tasks which decreases their concentration and increases exhaustion (Metin et al., 2018). In addition to that, rushed work might have more mistakes, lower-quality outputs, and less efficient job performance. When such cases get extreme, procrastination can result in loss of professional credibility, strained relationships at workplace, and may result in the employee losing his/her job (Metin et al., 2018).

Procrastination has negative effects on personal performance as well as organisational performance (Amit et al., 2021). The ripple effect of an employee's procrastination can lead to a disruption in the entire team's dynamics, hampering the overall organisational productivity. Procrastination can lead to delayed projects, reduced collaboration of the team, which can lead to missed opportunities and lower competitiveness in the workplace. Procrastination can have severe consequences in industries like healthcare, finance, or engineering, where timelines and effectiveness in work play an important role.

Integrating Work Engagement, Procrastination, and Performance

The above discussion highlighted that there exists a complex and multifaceted relationship between work engagement, procrastination, and performance. Engaged employees are more absorbed in their work, and they have higher dedication and energy towards their work (Bakker et al., 2008). Therefore, they show more resilience while facing work related challenges. Such characteristics reduce the occurrence of procrastination as they naturally increase performance levels. However, disengaged or bored employees procrastinate more (Bakker et al., 2012). This has a negative impact on their overall performance. Organisations must understand this relationship because it will help in increasing productivity as well as well-being of the employees. A work environment that promotes engagement can help organisations in reducing procrastination the negative outcomes associated with it (Nguyen et al., 2013). When the employees are assigned with meaningful work that aligns with their skills and interests, they are more likely to grab the opportunities for growth and development. This creates a supportive organisational culture that not only recognises engagement, but also rewards performance.

In addition to that, the work interventions which are specially designed to reduce procrastination at work are more effective when integrated with strategies that help in enhancing work engagement (Cropanzano & Wright, 2001). For instance, time management training is helpful, but it can have better outcomes when it is combined with efforts to improve employees' intrinsic motivation and connection to their work. It is also important to address environmental factors that lead to work disengagement and increase boredom like performing monotonous tasks, lack of variety, or insufficient challenges (Nguyen et al., 2013). It can reduce the occurrence of procrastination at work and lead to an overall increase in employee performance.

The relationship between procrastination, performance, and work engagement is important to understand and their relationship is highly interconnected. It affects individuals as well as the organisation as a whole. The present research explores how procrastination roots from a lack of work engagement and the ways in which it impacts performance, thereby providing valuable insights for scholars and practitioners. Addressing workplace procrastination needs a comprehensive approach, as it takes psychological, behavioural, and organisational dimensions of work into consideration. A workplace that addresses procrastination from its roots and considers work engagement, can witness the employees having better performance, productivity and job satisfaction, which increases sustainability of the organisation.

VI. Factors Contributing Towards Procrastination Among Employees

Procrastination in the workplace is a pervasive issue, and it affects employees in deferent job roles as well as industries. In order to develop effective strategies that mitigate the impact of procrastination, it is important to understand the factors that lead to procrastination in the workplace. Such factors are generally classified into three categories - psychological, environmental, and organisational factors. Each category plays a significant role in driving procrastination for an employee.

Psychological Factors

Psychological factors emerge from individual traits and cognitive patterns which make employees delay their tasks, thereby, being significant factors that drive procrastination (Schaufeli et al., 2008). One key psychological contributor is perfectionism. Perfectionists tend to procrastinate work out of the fear of not meeting their quality standards when it comes to work (Sederlund et al., 2020). The fear of failure can lead them to procrastinate their work and cause delay in even starting the work. It is because they tend to get overwhelmed by the possibility of making mistakes while working. The aspect of perfectionism generally comes up in high-stakes professions like healthcare, law or finance, where even a small mistake can cause serious losses (Sederlund et al., 2020).

Two more significant psychological factors are anxiety and stress (Aydoğan & Özbay, 2012; Beheshtifar et al., 2011). Employees with high anxiety and stress levels can find it hard to enhance their focus, which makes them postpone their work. Here, a pattern is formed where delaying the tasks further increases stress levels, which also exacerbates procrastination. In addition to these, low self-efficacy, or a lack of confidence in employees can also lead to procrastination, since employees may feel that they are incapable of doing the work assigned to them. Lack of confidence in one's own ability can lead these employees to avoid tasks which they feel are more challenging for them (Aydoğan & Özbay, 2012; Beheshtifar et al., 2011).

One more psychological factor that comes into play in the context of procrastination in the workplace is task aversion. If a task is perceived to be boring or unpleasant by an employee, he/she would delay that task in favour of more enjoyable activities or tasks. This factor commonly affects an employee whose work is repetitive or monotonous, leading to disengagement in work, as well as procrastination (Amit et al., 2021).

Environmental Factors

Procrastination in the workplace is highly affected by the work environment. A distracting work environment may lead to higher instances of procrastination by the employees (Amit et al., 2021). For instance, open-plan offices are generally full of noises and visual distractions which reduce the concentration levels of employees. Moreover, being around colleagues who frequently engage in social interactions may also distract the employees, ultimately leading to procrastination in the workplace.

Another environmental factor leading to procrastination is technology. Ready availability of the internet and mobile devices while working makes it easy for employees to engage in non-work-related activities, like scrolling on social media (Türel & Dokumacı, 2022; Eddy et al., 2010). This is known as cyberslacking, and it leads to waste of time as employees give more time to non-productive activities. It becomes difficult to maintain focus on work when switching between work and leisure activities is very easy and quick. Ergonomic issues in the workplace may also drive procrastination. Employees may be more reluctant to engage in their work, especially where longer hours are required, if the workplace is poorly designed and causes physical discomfort (Türel & Dokumacı, 2022). For example, physical strain can be induced by an uncomfortable chair or a workspace with poor lighting, which can cause employees to delay work.

Organisational Factors

The structural elements within a company form the category of organisational factors. These factors can either promote or discourage procrastination. Lack of clear goals and expectations is one of the main organisational factors (Amit et al., 2021). Employees tend to procrastinate work when they are not sure about what is expected from them. Without clear directions regarding a given task, employees can keep navigating as well as procrastinating their tasks. Such a confusion can lead to further delays in completing the tasks. Employees may hesitate to even begin the tasks since they don't know how to approach it.

Another important organisational factor is, management style. When supervisors keep controlling and monitoring employee tasks, micromanagement comes into play. This can make the employees feel less empowered and motivated, which causes further delay in task completion, as a form of passive resistance (Hutmanová et al., 2022). In contrast to this, lack of supervision from management may also lead to procrastination in the workplace. This is because the employees may feel disconnected and unmotivated to perform their tasks efficiently.

Organisational culture is one of the most important organisational factors in this context. A culture where time management is not valued and procrastination is tolerated is a culture where employees could get accustomed to delaying their tasks (Chauhan et al., 2020). Employees may start to feel that their procrastination and delays in work do not have any real consequences, thereby, making procrastination a habit. Organisations where productivity is valued and employees are held accountable for their work are less likely to witness procrastination in the workplace. This is because employees are highly aware of the importance of completing their work on time.

Procrastination is also driven by workload and task complexity. Overwhelming workloads or complex tasks can make employees feel helpless and more stressed (Metin et al., 2016; Beheshtifar et al., 2011). This ultimately causes delays in starting the work. Employees may use procrastination as a way to cope with the

enormity of the work which seems difficult to them. This factor is more prevalent in high-pressure industries where multiple complex tasks are to be performed simultaneously.

It can be concluded that procrastination in the workplace is a multifaceted issue, which gets affected by many psychological, environmental, and organisational factors. Organisations must understand and address these factors in order to reduce the consequences of procrastination. Organisations can mitigate procrastination in the workplace by addressing barriers like perfectionism, anxiety, etc., creating a work environment which is highly focussed and supportive. This will create a more productive and engaged workforce.

VII. The Economics Associated With Procrastination

Procrastination has many implications in the field of economics. It is a common human behaviour that pertains to opportunity cost, hyperbolic discounting, economic incentives, and loss aversion in the field of economics. By using real life examples and instances to explore these concepts, understanding their economic consequences and implications on decision making becomes easy.

Opportunity Cost and Procrastination

One of the primary economic implications of procrastination is opportunity cost. Opportunity cost is the value of the best alternative which is forgone when another option is selected (Ross, 2010). Using a real-life example, we can understand this better: Imagine that a student named Sarah has her research paper due tomorrow. She can either spend the next hour working on the research paper, leading to her academic success, or she can watch her favourite TV show for an hour, which will help her entertain herself, but give no academic benefit. If Sarah chooses the second option and watches her favourite show, the opportunity cost here will be the academic progress she could have made during that hour. The opportunity cost here is significant because if she had invested that time in her research paper, she would have improved her academic performance along with future opportunities.

Many economists believe that time is a highly valuable resource, which is not utilised properly due to procrastination. This can be illustrated by the concept of production possibility frontier (PPF). PPF is concave due to increasing opportunity cost (Sabarwal, 2020). The more a person procrastinates, the more time is wasted, and productivity is hindered. We can use a real-life example to understand this: When a small business owner procrastinates important tasks like marketing or product development, he/she is not just wasting time, but also losing potential revenue and growth opportunities (Ross, 2010). It's a fact that the longer the procrastination, the steeper the opportunity cost. Time which could have benefited the business economically, gets irretrievably lost due to procrastination.

Hyperbolic Discounting and Procrastination

An important economic concept named hyperbolic discounting is related to procrastination. It is a cognitive bias where people consider smaller, immediate rewards to be more significant than larger, delayed ones. The "live in the moment" mentality drives this concept, as people start prioritising short-term gratification at the expense of long-term benefits (Zhang & Feng, 2020). Let's take a real-life example to understand this: a young professional named John is given two options- he can either attend a networking event today which could bring him future career opportunities, or he can go on a night out with his friends. Socialising is an immediate pleasure, which may be more appealing for John, than the networking event, as the event's benefits are uncertain. This is why, he might end up choosing the short term reward of a night out, at the expense of long term future benefits that he might get from networking.

Hyperbolic discounting may result in time-inconsistent preferences, where people make choices depending on the time frame involved (Brocas & Carrillo, 2001). For instance, if John is given the same choice, but with the event scheduled for the next day, and with a clear benefit like meeting some industry leader, he might choose to attend the networking event. This highlights how the value of rewards changes as per the temporal proximity. A classic example is given by Richard Thaler, a pioneer in behavioral economics, that explains this concept with retirement savings. Many individuals recklessly spend their money on momentary joys, instead of saving for the future. This shows that they procrastinate on decisions that would contribute to their long-term financial security (Benartzi & Thaler, 2013). This example clearly highlights how hyperbolic discounting leads to suboptimal economic outcomes through the tendency to procrastinate taking financial decisions like saving money for future.

Economic Incentives and Procrastination

The relationship between procrastination and productivity is affected by economic incentives (Asio, 2021). These incentives are specially developed to motivate specific behaviours. Economic incentives and procrastination have an inversely proportional relationship. This means, the higher the incentives are, the lower is the likelihood of procrastination (Amit et al., 2021). Let's consider two employees, Alice and Bob, working at the

same company. Alice is offered a \$1,000 bonus if she manages to meet her quarterly targets. However, Bob is offered \$500 bonus for the same effort. Alice will be more motivated to complete the targets, because she is being offered a higher incentive. This increases work motivation, and decreases the aspect of procrastination. This highlights the fact that people are more likely to act when they are being incentivised and the incentives outweigh the cost of delaying their action.

This concept is also applied in sales roles, where salespersons are given a commission-based pay, which motivates them to close more sales deals, quickly. Getting a monetary commission motivates salespersons to focus more on selling and less on procrastinating. In contrast to this, employees feel less motivated to work and procrastinate more in cases where their jobs are not incentive based, or the incentives are less tied to their performance. This makes them feel that the immediate consequences of delaying their tasks are not too much.

Loss Aversion and Procrastination

Procrastination also relates to the economic concept of loss aversion, which means that people generally prefer avoiding losses, over acquiring equivalent gains. This tendency makes loss aversion a powerful motivator in mitigating procrastination at work (Ross, 2010). The fear of losing a valuable thing outweighs the benefits of delaying things. This can be understood through a real-life example of Emma, a student, who is given two options. One is to receive \$10 for completing her homework on time, the other is to lose \$10 if she doesn't complete her homework. She would be highly motivated by the prospect of losing money, rather than earning it, thereby, leading to work completion.

Loss aversion can be used to reduce procrastination in the workplace, in a strategic manner (Zhang & Feng, 2020). For example, if employees know that not meeting a work deadline will lead to deduction in their bonus or salary, they will be more diligent in completing work on time, rather than knowing that they will get an incentive on early completion of work. This highlights that in an economic sense, people are more likely to avoid losses than to secure gains, by taking a significant action.

In conclusion, procrastination is highly related to many economic concepts like opportunity cost, hyperbolic discounting, economic incentives, and loss aversion. Getting a deeper understanding of these relationships can provide valuable insights into how and why people delay tasks. This can also offer a foundation for developing effective strategies for mitigating negative impacts of procrastination. People can improve their time management skills and productivity, along with making more informed decisions, by identifying and analysing the economic implications of procrastination. This is beneficial for them, in the long run.

VIII. Conclusion

In conclusion, the relationship between procrastination, performance, and work engagement is intricate and highly interdependent. Procrastination, often resulting from disengagement, can significantly hinder both individual and organisational productivity. Conversely, work engagement, characterized by vigour, dedication, and absorption, positively influences performance and fosters a healthier, more productive work environment. Engaged employees are less likely to procrastinate, as they find satisfaction and meaning in their tasks. Addressing procrastination requires a holistic approach, integrating strategies that enhance engagement, such as aligning work with employee interests and providing opportunities for growth. Organisations that focus on boosting engagement while addressing procrastination can expect improved performance, job satisfaction, and long-term success. This comprehensive understanding offers valuable insights for both scholars and practitioners in promoting a more engaged, efficient workforce.

Further, workplace procrastination is influenced by a combination of psychological, environmental, and organisational factors. Psychological traits like perfectionism, anxiety, and low self-efficacy lead employees to delay tasks, while environmental distractions such as open-plan offices and easy access to technology encourage procrastination. Organisational factors, including unclear goals, micromanagement, and poor workplace culture, also contribute to procrastination. High workloads and complex tasks can further overwhelm employees, causing delays in starting work. To address these issues, organisations must create a focused, supportive work environment that promotes clear goals, reduces distractions, and helps employees manage stress and anxiety. By understanding and mitigating these factors, companies can enhance productivity and cultivate a more engaged workforce.

Finally, procrastination is closely tied to several key economic concepts, including opportunity cost, hyperbolic discounting, economic incentives, and loss aversion. Delaying tasks leads to significant opportunity costs, as time wasted on short-term pleasures could be better spent on long-term gains. Hyperbolic discounting explains how people prioritize immediate rewards over larger future benefits, often resulting in suboptimal decisions. Economic incentives play a crucial role in motivating people to overcome procrastination, with higher incentives reducing delays in action. Lastly, loss aversion, where people prefer avoiding losses over gaining equivalent rewards, can effectively counter procrastination by highlighting the cost of delays. Understanding these economic implications offers valuable insights into improving time management, productivity, and decision-making, helping individuals and organizations mitigate the negative effects of procrastination.

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