# THE RELATIONSHIP BETWEEN LUNCH BREAK AUTONOMY AND EMPLOYEE CREATIVITY: POSITIVE AFFECT AS A MEDIATOR

By

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| | |
|---|---|
| LBA | Lunch Break Autonomy |
| PA | Positive Affect |
| PD | Psychological Detachment |
| SDT | Self-Determination Theory |
| SPSS | Statistical Program for Social Science |

## ABSTRACT

### THE RELATIONSHIP BETWEEN LUNCH BREAK AUTONOMY AND EMPLOYEE CREATIVITY: POSITIVE AFFECT AS A MEDIATOR

**EDDIE LIMBANG JR**

Self-Determination Theory (SDT) and studies suggest that fulfilling psychological needs such as autonomy leads to the generation of energy and hence, decreases fatigue. Literature has suggested that the presence of lunch break autonomy (LBA), the autonomy that employees feel during a lunch break, reduces the fatigue resulting from activities such as working during a break or socializing with others from the office. Studies have also found a positive association between autonomy and creativity. Therefore, LBA is assumed to have a positive relationship with creativity at work. However, there are limited studies on the relationship between LBA and employees' creativity and the underlying mechanism of the relationship is unexplored. Studies have indicated that the fulfillment of autonomy is associated with positive affect, which is conducive to creativity. The present study investigated the relationship between LBA and creativity and the hypothetical mediating role of positive affect in the aforementioned relationship among working Malaysians. utilizing a cross-sectional design. Based on the suggestion of the online monte carlo power analysis for indirect effects calculator, 191 responses from employees in creative industries were collected and analyzed. These participants answered the lunch break autonomy subscale of the Recovery Experience Questionnaire, Positive and Negative Affect Schedule, and self-rated creativity scale to measure LBA, positive affect, and creativity respectively. For the control variable, the psychological detachment subscale from the Recovery

Experience Questionnaire was utilized. The findings are aligned with the study's hypothesis that LBA is indirectly associated with creativity through positive affect. These findings offer insights into the importance of effective lunch break policies that encourage autonomy and a potential way to cultivate employees creativity for organizations to consider.

*Keywords*: lunch break autonomy, creativity, positive affect

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## DECLARATION

I, Eddie Limbang hereby declare that the dissertation is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.

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**APPROVAL SHEET**

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**SUBMISSION OF DISSERTATION**

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I understand that University will upload a softcopy of my dissertation in pdf format into UTAR Institutional Repository, which may be made accessible to UTAR community and public.

Yours truly,

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# CHAPTER 1

# INTRODUCTION

## 1.1 Background of the study

Organizations today are increasingly adopting more technologically centered approaches to their daily operations. As work tasks evolved from being physical and repetitious to more cognitively challenging and complex with technology, research has adjusted accordingly and focused more on examining recovery from cognitive and emotional strain, usually involving aspects that consider the activity, duration, timing or frequency of work breaks (Scholz et al., 2019). A work break can be generally understood as a period of time where employees are not officially engaged with work, although it can differ according to factors such as duration or timing (Scholz et al., 2019). For instance, a work break that lasts for a week and occurs once or twice a year (i.e., leaves, and sabbaticals) would be different from work breaks which last for less than an hour and occur frequently (i.e., lunch breaks). Work recovery literature appears to have categorized these different work breaks into the approaches of examining work break after working hours (Sonnentag et al., 2017) and examining work breaks that occur during working hours (Trougakos & Hideg, 2009). It is suggested that work breaks benefit employee health, performance and wellbeing (Fritz et al., 2013; Kühnel et al., 2017; Taylor et al., 2013). Positive associations between work breaks and increased performance such as sales performance (Kim et al., 2018), could be attributed to gains in employee's cognitive and physical performance (Montano et al., 2014).

Lunch breaks, a type of work break, has been found to support this trend in the literature by experimental findings which suggest that cortisol, a biological indicator of stress, can be reduced by relaxation during employee's lunch breaks (Krajewski et al., 2011). Similarly, Trougakos et al. (2014) found that lunch break autonomy predicted a decrease in fatigue at the end of the workday. Bosch et al. (2018) posits that the perceived control during leisure time, which is also recognized as one of the core recovery experiences (Sonnentag & Fritz, 2007), plays a role in facilitating the replenishment of resources during the lunch break that decreases fatigue at the end of the work day. In other words, through the satisfaction of autonomy during the lunch break an employee experiences recovery and wellbeing (Bosch et al., 2018).

Self Determination Theory (SDT; Deci & Ryan, 2000) posits that the fulfillment of needs such as autonomy leads to feelings of vitality, and greater wellbeing which can be characterized by positive affect. Positive affect is understood as feelings of happiness (Pressman & Cohen, 2005). Findings across autonomy-related literature appear to not only support the benefits of autonomy satisfaction (Bartholomew et al., 2011), but also suggest that the benefits of satisfaction of autonomy on wellbeing outcomes transcend differing cultural backgrounds (Chen et al., 2015) and contexts such as sports, classroom and work (Cheon & Reeve, 2013; Neufeld & Malin, 2020; Núñez & León, 2015). These findings provide ample support to infer the possibility that benefits of autonomy satisfaction during a lunch break may translate to wellbeing outcomes at work through positive affect. Additionally, autonomy is also associated with benefits such as creativity at work (Ghosh, 2015; Sia & Appu, 2015). According to Kremer et al. (2019), creativity at the workplace is especially important for not only the success, but also the survival of organizations in the technologically driven environment that most organizations find themselves in. Whereas,

organizations operating in an industry characterized by high task novelty such as art and advertising may value creativity at work even more as the quality of their products or services depend on creativity at work. These findings highlight that a better understanding on the relationship between LBA and creativity at work with positive affect could be beneficial for organizations in the creative industry.

## 1.2 Problem statement

The relationship between lunch break autonomy and creativity at work remains unclear, and the underlying mechanism in this relationship has not yet been fully explored. The lack of clarity in the literature is due to limited research in the area of lunch breaks. While studies have documented the relationship between autonomy satisfaction and benefits such as creativity at work, it is not yet clear how these two constructs interact in the context of lunch breaks. Recent empirical studies related to lunch breaks appear to have focused on fatigue (Trougakos et al. 2014) and the experience of recovery, as well as wellbeing (Bosch et al., 2018). The narrow focus has limited our understanding of the effect of lunch break autonomy on benefits such as creativity at work.

In a study examining the behavior and perceptions of office workers towards lunch breaks, it was found that some office workers still skipped the lunch break time allocated to them, even with the knowledge of its recovery benefits (Oliver et al., 2020). Despite findings which highlight the benefits of recovery from lunch breaks (Bosch et al., 2018; Trougakos et al., 2014) and laws designed to accommodate lunch breaks at work (Ashari et al., 2017), there still is a prevalence of employees skipping lunch breaks. An article released by the straits times highlights that a survey in Singapore indicates that at least half of respondents felt pressure to be productive during their lunch

breaks (Seow, 2019). This suggests that, despite knowledge of information which indicates the importance of recovery from lunch breaks, factors such as a high pressure work environment, culture or the disposition to prioritize work above everything else may influence employees to skip lunch breaks (Oliver et al., 2020). This consistent neglect of lunch breaks may lead to loss of potential organizational effectiveness in the long run. A survey found that employees who took daily lunch breaks reported higher work engagement as compared to those who skipped it (Tork, 2017). Furthermore, skipping lunch breaks may contribute to overwork which risks both the performance and wellbeing of employees. As suggested by recovery research, lunch breaks provide opportunities to recover from the strain of job demands and replenish personal resources (Fritz et al., 2013; Trougakos & Hideg, 2009). Skipping lunch breaks eliminates these opportunities and may lead to an accumulation of strain and diminishment of resources which leads to overwork and burnout (Sonnentag & Fritz, 2015). As mentioned in a recent study, the relevance of attaining a healthy work-life-balance has increased in recent years and gained significance among both employees and employers (Le et al., 2020). The absence of autonomy during the lunch break or the lack of a lunch break may inhibit the satisfaction of autonomy, subsequently reducing the positive affect and creativity of employees. Not to mention that an organization's product or service quality could be dependent on the creativity of its employees. This adds greater weight to the importance of lunch breaks autonomy to organizations and employees by demonstrating the beneficial effects of satisfying it.

## 1.3 Research Questions

This study will examine the following research questions:

1: What is the relationship between lunch break autonomy and creativity among working Malaysians?

2: What is the relationship between lunch break autonomy and positive affect among working Malaysians?

3: What is the relationship between positive affect and creativity among working Malaysians?

4: Does positive affect mediate the relationship between lunch break autonomy and creativity among working Malaysians?

## 1.4 Research Objective

The main objective of the study is to investigate the relationship between lunch break autonomy and creativity at the workplace and the mediating role of positive affect in the relationship among working adults in Malaysia. This objective can be broken down into the following specific objectives; (i) To investigate the relationship between lunch break autonomy and creativity among working Malaysians, (ii) To investigate the relationship between lunch break autonomy and positive affect among working Malaysians, (iii) To investigate the relationship between positive affect and creativity among working Malaysians, and (iv) To investigate whether positive affect mediates the relationship between lunch break autonomy and creativity among working Malaysians.

## 1.5 Hypotheses

Subsequently, the hypotheses of the study are described as: (H1) Lunch break autonomy is positively correlated with creativity among working Malaysians, (H2) Lunch break autonomy is positively correlated with positive affect among working Malaysians, (H3) Positive affect is positively correlated with creativity among working Malaysians, and (H4) Positive affect mediates the relationship between lunch break autonomy and creativity, where lunch break autonomy indirectly increases creativity through positive affect among working Malaysians.

## 1.6 Significance of the Study

Conducting this study is important for several reasons. By testing the mediation model in this study, findings could support the importance of exploring autonomy satisfaction in different contexts at the workplace. For instance, the study explores the relationship between autonomy satisfaction during the lunch break and its potential benefits for creativity at work. The study broadens existing recovery at work literature by considering whether findings of positive correlation between autonomy and creativity throughout the literature is applicable in the context of lunch breaks and creativity at work. Future studies could utilize the findings of this study as a stepping stone and explore whether Lunch Break Autonomy (LBA) could influence other SDT-related processes such as resilience or work engagement. Similarly, for the indirect relationship between LBA and creativity at work via positive affect. Further understanding in this matter would offer insight into the potential intricacies and nuances which underlie the relationship between LBA and creativity at work. By exploring these aspects, the current study has the potential to supplement existing literature by highlighting the

importance of considering the different facets of autonomy satisfaction at the workplace and the benefits that it brings.

From a more pragmatic perspective, conducting this study tests the importance of autonomy satisfaction at the workplace for organizations. Organizations often have limited resources and are focused on investing them into initiatives which bring the most gain. Certain organizations investigate initiatives or policies which revolve around autonomy satisfaction in different contexts. The current literature generally posits that autonomy satisfaction during the lunch break is important for employee recovery (Bosch et al., 2018). Lunch breaks constitute a significant portion of an employee's work break during working hours, and therefore presents a significant opportunity for recovery of personal resources (Fritz et al., 2013; Trougakos & Hideg, 2009). For recovery to occur, it is essential that employees perceive control or rather autonomy during this time to experience recovery (Bosch et al., 2018; Trougakos et al., 2014). These clearly indicate the importance of LBA for recovery during work. If for instance, the study's findings support that lunch break autonomy is positively associated with creativity at work through positive affect, then this would highlight the importance of LBA in not only recovery, but also processes that could influence work performance such as creativity at work. Findings like these can be taken into consideration when it comes to weighing the importance of considering the various facets of autonomy satisfaction for organizations and its benefits for policy making. Additionally, organizations specifically interested in boosting the working capabilities of its employees through creativity could also benefit from the findings of this study. In other words, conducting this study supplements organizations with an additional perspective to consider when it comes to autonomy satisfaction and/or creativity related policy making. It is also worth noting that,

from an individual level, employees themselves could also consider the findings of the current study should they be interested in personal development through autonomy satisfaction and/or creativity.

Positive affect is considered as a potential mediator because the relationship between lunch break autonomy and creativity at work is unknown, any explanations or mechanisms involved with this relationship has not been explored by the literature. On the basis of empirical findings and the theoretical perspectives of SDT (Deci & Ryan, 2000), and broaden-and-build theory (Fredrickson, 2004), positive affect can be proposed as a potential mechanism in the relationship between lunch break autonomy and creativity at work, where the satisfaction of autonomy during the lunch break enhances positive affect which leads to the cultivation of employee creativity. This is supported by empirical studies suggesting a positive correlation between autonomy and positive affect (Levine et al., 2020; Oriol-Granado et al., 2017; Ryan et al., 2010). Positive affect is described as feelings of happiness, contentment, excitement or enthusiasm, which are usually a product of a pleasurable interaction with the environment (Clark et al., 1989; Pressman & Cohen, 2005). Additionally, positive affect has been found to be associated with creativity (Tavares, 2016). The broaden-and-build theory (Fredrickson, 2004), posits that positive emotions contribute to the broadening of one's mindset that involves adaptive and creative thought processes to occur. Specifically, positive affect increases cognitive flexibility which is necessary for creative thoughts and facilitates the sustaining of effort put into the generation of creative ideas (Parke et al., 2015). Through these findings, it is reasonable to conceptualize that the fulfillment of autonomy during a lunch break elicits positive affect, which leads to thought processes that accommodate creativity at work.

## 1.7 Definitions of variables

For the predictor variable of the study, Lunch break autonomy, it is conceptually defined as the control or freedom that an employee experiences during the course of their lunch break (Bosch et al., 2018; Trougakos et al., 2014). Operationally it can be understood as the total score on the control subscale of the recovery experience questionnaire (Sonnentag & Fritz, 2007), where a higher total score would indicate higher lunch break autonomy (see Appendix B).

In terms of the mediating variable, positive affect can be understood as feelings of happiness, contentment, excitement or enthusiasm, which are usually a product of a pleasurable interaction with the environment (Clark et al., 1989; Pressman & Cohen, 2005). Positive affect will be represented by the total score on the International-Positive and Negative Affect Schedule-Short Form questionnaire (Thompson, 2007), where a higher total score would indicate higher positive affect (see Appendix C).

For the outcome variable, creativity can be conceptualized as the generation of new ideas and solutions, as well as the generation of new business strategies and processes related to relevant work responsibilities (Ford & Gioia, 2000; Sia & Appu, 2015). It will be measured by taking the total score on the modified Self-Rated Creativity scale (Tan & Ong, 2019), where a higher total score would indicate higher creativity at work (see Appendix D).

Psychological Detachment, which is known as the control variable, can be conceptualized as not thinking about work-related thoughts during official non-working hours (Sonnentag & Fritz, 2007). Psychological Detachment was measured using three items adapted from the psychological detachment subscale of the Recovery Experience Questionnaire (REQ; Sonnentag & Fritz, 2007). A higher total score here would indicate higher psychological detachment.

In the context of this study, working Malaysians are understood as the sample for participants who are within the age range of 18 to 60 years old and have been working in the creative industry in Malaysia. This includes those who are employed by an organization and self-employed along with varying work arrangements such as working in the office full time, hybrid, and also work from home.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Creativity at work

The extensive literature on creativity has led to many findings which posit various definitions and dimensions of creativity (Batey & Furnham, 2006). Among the definitions which has been generally used by work creativity literature is that creativity is the generation of new and practical solutions (Amabile, 1983). In the context of the workplace, a review proposed an integrative conceptualization of creativity, which characterizes creativity as part of the process, outcomes and results of efforts put into improvement of work-related processes (Anderson et al., 2014). In other words, instead of just the generation of new ideas and solutions, creativity also involves the generation of new business strategies and processes related to the tasks at hand (Ford & Gioia, 2000; Sia & Appu, 2015). It is highlighted that focus should be put on whether an employee has put effort into creative thoughts or actions, regardless of whether this has led to success or failure (Drazin et al., 1999). The literature on organizational sciences indicates that creativity plays an important role in organization innovation, and the benefits associated with it (Hammond et al., 2011). Hammond et al. (2011) goes on to suggest autonomy as one of the factors associated with employee creativity. Other studies which have explored the antecedents of creativity also appear to indicate that there is a positive correlation between autonomy and creativity (Liu et al., 2011; Nili & Tasavori, 2022; Wang & Cheng, 2009).

## 2.2 Autonomy

According to Stone et al. (2009), autonomy is an experience characterized by volition, self-determination and choice. It is also stated that autonomy is not the same as independence because someone who is experiencing autonomy can still be dependent on others (Stone et al., 2009). As proposed by self determination theory (SDT; Deci & Ryan, 2000), autonomy along with competence and relatedness are psychological needs which need to be satisfied for an individual to feel greater wellbeing, which is characterized by positive affect (Oriol-Granado et al., 2017; Ryan et al., 2010). Past studies have found that increased autonomy predicts increased creativity (Ghosh, 2015; Sia & Appu, 2015). Closer examination of the literature indicates autonomy was considered as a predictor of creativity at work even in earlier organizational studies (Amabile, 1996; Deci & Ryan, 2000). These findings suggest that autonomy is positively correlated to creativity at work and justify organizational research efforts into understanding the relationship between these variables. For instance, studies have examined the relationship between autonomy related constructs such as leadership support for autonomy or task autonomy and creativity at work (Sia & Appu, 2015; Xie et al., 2020).

## 2.3 Lunch break autonomy and creativity at work

Lunch breaks are generally thought to be the longest break during work and represent a significant opportunity for employees to experience recovery (Trougakos et al., 2014). A recent study supports this by finding that individual wellbeing increases through the replenishment of personal resources during lunch breaks, with the condition that the experiences of relaxation, relatedness and control

are present during the lunch break (Bosch et al., 2018). According to Bosch et al. (2018), the experience of control during lunch breaks can also be conceptualized as the perceived autonomy that an individual feels they have over the lunch break. Similar to the trend of the literature on autonomy and creativity, fulfillment of autonomy during the lunch break has also been found to be positively associated with wellbeing (Bosch et al., 2018). Given that theories such as SDT (Deci & Ryan, 2000) and broaden-and-build theory (Fredrickson, 2001) support a framework which utilize a pathway through the positive association between autonomy and wellbeing, it is probable that the satisfaction of autonomy during the lunch break and resulting wellbeing which is characterized by positive affect may lead to benefits such as creativity at work. Furthermore, as suggested by the findings of Bosch et al. (2018), where wellbeing outcomes of satisfying autonomy may be applicable in lunch break settings. Similar studies have found that the wellbeing outcomes of autonomy satisfaction occur in various contexts such as differing cultural backgrounds (Chen et al., 2015), sports (Cheon & Reeve, 2013), classroom (Núñez & León, 2015) and work (Tummers et al., 2018). It is worth noting that recent findings indicate a positive association between autonomy satisfaction and employee creativity in environments which support creativity (Nili & Tasavori, 2022). One of the factors that could influence these environments would be task novelty, where low-novelty tasks are straight forward in nature and do not require creative solutions, while high-novelty tasks tend to be complex and require novel solutions which provides opportunity for creativity to take place (Herrmann & Felfe, 2013). It is possible that employees would need opportunities to exercise creativity before being able to display it in their work. With this assumption in mind, employees who work in industries which require high-task novelty could possess more opportunities to be creative as compared to non-creative industries.

Therefore, this study will investigate whether satisfaction of autonomy during a lunch break could increase creativity among Malaysians working in the creative industry. In line with findings from the literature, it is hypothesized that increased lunch break autonomy predicts increased creativity among working Malaysians.

H1 – Increased lunch break autonomy predicts increased creativity among working Malaysians.

## 2.4 Positive affect

In the perspective of SDT, satisfaction of needs such as autonomy leads to wellbeing (Deci & Ryan, 2000). According to Deci and Ryan (2000), wellbeing is also characterized and measured by vitality and positive affect. While it suggested that wellbeing as a construct has been given various conceptualizations, it appears that positive affect has been used consistently throughout the literature to characterize wellbeing (Rose et al., 2017). Positive affect can be understood as feelings of happiness, contentment, excitement or enthusiasm, which are usually a product of a pleasurable interaction with the environment (Clark et al., 1989; Pressman & Cohen, 2005). Because positive affect has been conceptualized as a state of mind, it is suggested to be more related to the "feeling" dimension of wellbeing rather than "functioning" dimension (Rose et al., 2017). Specifically, Stewart-Brown (2017) posits that wellbeing is made up of the dimensions of "functioning" and "feeling", where functioning is influenced by traits and behavior, while feeling is more related to a state and more easily influenced by changes. However, Fredrickson's (2001) broaden and build theory indicates that positive affect's role in building resources through engagement may hint that positive affect can also be linked to the "functioning" dimension of wellbeing. The broaden-and-

build theory (Fredrickson, 2001) posits that the presence of positive affect leads to the building of more personal resources through engagement or even enjoyment in activities, which results in further positive experiences and wellbeing. Based on this theory, it can be argued that, although positive affect is conceptualized as a feeling, it has the ability to influence an individual to engage more in activities, which can be considered a form of behavior. Additionally, the interrelatedness of the feeling and functioning domains of wellbeing (Rose et al., 2017) may also play a part in characterization of wellbeing as positive affect.

## 2.5 Lunch break autonomy and positive affect

It can be understood that through the satisfaction of autonomy, wellbeing is increased, which is characterized by positive affect (Deci & Ryan, 2000). This is also supported by past studies which have shown a positive correlation between autonomy-related constructs and positive affect (Levine et al., 2020; Mossman et al., 2022; Oriol-Granado et al., 2017; Ryan et al., 2010; Tummers et al., 2018). Through findings from Bosch et al. (2018), where experiencing control of one's own lunch break is associated with afternoon wellbeing, it can be inferred that the autonomy – positive affect association from past findings could be examined in lunch break settings. Based on SDT perspective and empirical findings it is assumed that increased autonomy during the lunch break may predict greater wellbeing which is conceptualized and measured as positive affect. This study hypothesizes that increased lunch break autonomy predicts positive affect among Malaysians working in the creative industry.

H2 – Increased lunch break autonomy predicts increased positive affect among working Malaysians.

## 2.6 Positive affect and creativity at work

Past studies on the antecedents of creativity found two notable aspects which play a role in creativity at work, the mastery of the knowledge related to the task and the affect the employee experiences when doing the task (Mainemelis, 2001; Muñoz-Doyague et al., 2008; Shalley et al., 2004). Parke et al. (2015) posits that positive affect and creativity at work are linked through two possible mechanisms which are also supported by empirical findings. Firstly, through the aspect of cognition, where positive affect facilitates thought processes which are required for creativity at work to take place (Amabile et al., 2005; Baas et al., 2008). Secondly, positive affect functions through the effect of motivation, where positive affect acts both as a catalyst and sustainer of efforts put into creativity at work (George & Zhou, 2007; Shalley et al., 2004). Alternatively, broaden and build theory (Fredrickson, 2001) may also offer a theoretical perspective on the positive association between positive affect and creativity at work, it is proposed that the experience of positive affect broadens one's current mindset and leads to the consideration of engagement with an activity that wouldn't have been considered in the first place if given the lack of positive affect. In addition to that, this broadening of mindset involves the expansion of attention and cognition, allowing adaptive and creative thought processes to occur (Fredrickson, 2004). Past studies conducted also appear to support this theoretical perspective by suggesting a positive correlation between positive affect and employee creativity (Khan & Abbas, 2022; Parke et al., 2015; Tavares, 2016; Xie et al., 2020). With these findings and broaden and build theory in mind, it is proposed that increased positive affect will predict creativity in this study among Malaysians working in the creative industry.

H3 – Increased positive affect predicts increased creativity among working Malaysians.

## 2.7 The mediating role of positive affect

In line with literature that has linked autonomy and creativity (Nili & Tasavori, 2022), autonomy and positive affect (Mossman et al., 2022), and positive affect with creativity (Khan & Abbas, 2022), as well as the synthesis of theories of SDT (Deci & Ryan, 2000), broaden and build theory (Fredrickson, 2004) and empirical findings, this study posits the mediating role of positive affect in the relationship between lunch break autonomy and creativity at work. Specifically, when autonomy during the lunch break is satisfied, employees enjoy increased wellbeing, which is suggested to be characterized by positive affect (Bosch et al., 2018; Deci & Ryan, 2000). This positive affect in turn, facilitates thought processes which are conducive for creativity to occur at work through the process of broadening (Fredrickson, 2004). It is hypothesized that positive affect will mediate the relationship by acting as the mediating mechanism which allows lunch break autonomy to indirectly increase creativity among Malaysians working in the creative industry.

H4 - Positive affect mediates the relationship between lunch break autonomy and creativity, where lunch break autonomy indirectly increases creativity through positive affect among working Malaysians.

## 2.8 SDT and Broaden-and-build theory as an integrated framework

In light of findings which suggest the associations between autonomy, positive affect and creativity at work, this study adopts two theoretical perspectives – SDT (Deci & Ryan, 2000) and broaden-

and-build theory (Fredrickson, 2004) – to be integrated as a hypothetical framework which explores the relationship between these variables in the context of lunch breaks. Specifically, SDT (Deci & Ryan, 2000) posits that the satisfaction of autonomy would lead to wellbeing which is characterized by positive affect. As suggested by Stone et al. (2009), autonomy is an experience characterized by volition, self-determination and choice. When an employee experiences feelings of choice and control over their lunch break, they are more likely to experience positive affect as a result of the satisfaction of the need for autonomy. This also appears to be supported by the findings of Bosch et al. (2018) which suggest that lunch break autonomy is positively associated with wellbeing.

The presence of positive affect cultivates thought processes essential for creativity at workto occur. Frederickson's (2004) broaden-and-build theory suggests that the experience of positive affect encourages participation or engagement in activities to build more personal resources. This process involves a form of broadening of the mindset, where those who experience it, are more likely to engage in an activity (Frederickson, 2001). The thought processes associated with a broadened mindset such as the expansion of attention and cognition (Frederickson, 2004) are also essential for the generation of new and practical solutions which characterize creativity (Amabile, 1983). Furthermore, several findings also appear to support a correlation between positive affect and creativity (Parke et al., 2015; Tavares, 2016; Xie et al., 2020). Therefore, by utilizing the theoretical perspective of SDT, the satisfaction of autonomy during the lunch break, would lead to wellbeing which is characterized and measured by positive affect. This positive affect, as suggested by broaden-and-build theory, plays the role of cultivating a mindset which encourages thought processes that accommodate creativity at work.

## 2.9 The role of the integrated framework in the model of the study

Each of the theories used in the integrated framework plays a role in hypothetically explaining the relationship between the variables. For the association between lunch break autonomy and positive affect, SDT (Deci & Ryan, 2000) is used to explain it. Through the fulfillment of autonomy during the lunch break, an employee would feel greater wellbeing. This greater sense of wellbeing is also characterized and measured by positive affect. In summary, through the fulfillment of autonomy during lunch break, employees are more likely to experience positive affect.

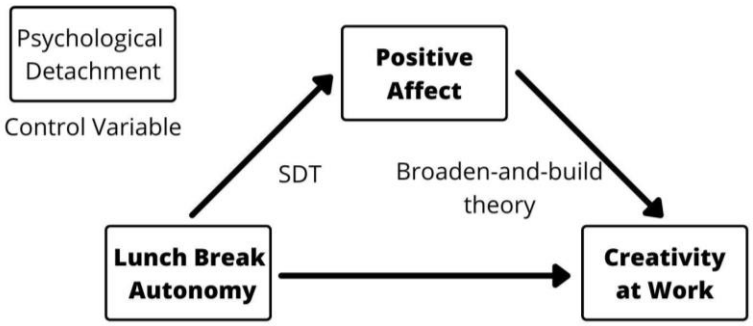



Figure 2.1: Conceptual framework for Lunch Break Autonomy, Creativity at Work & Positive Affect

Frederickson's (2004) broaden-and-build theory is used to explain the relationship between positive affect and creativity at work. Through the experience of positive affect, employees are hypothesized to undergo a process of broadening their mindset. This broadening of the mindset causes individuals to consider more possibilities and actions which leads to more engagement with activities. As hinted by the characteristics of this broadened state of mind, the thought processes involved are also conducive to creativity. This is because creativity is also related to increased attention spans and cognitive flexibility, which are important for the consideration of more possibilities and actions.

Therefore, the experience of positive affect would lead to the increase of thought processes which also characterize creativity at work.

Through the perspective of SDT (Deci & Ryan, 2000), satisfaction of autonomy during a lunch break will allow an employee to experience positive affect.As posited by Frederickson's (2004) broaden-and-build theory, the experience of positive affect would lead to creativity at work. Therefore, for the model of the study, through the theories of SDT and broaden-and-build theory, positive affect acts as a mediating variable in the relationship between lunch break autonomy and creativity among working Malaysians.

Recent findings suggest that psychological detachment may also influence the positive affect that an employee experiences (Gaudiino & Di Stefano, 2021). Similarly, in a study examining lunch break autonomy, psychological detachment and positive affect as a part of the variables it was examining, it was also found that psychological detachment may have some influence on positive affect (Bosch et al., 2018). Therefore psychological detachment was included as a control variable in the study.

# CHAPTER 3

# METHODOLOGY

## 3.1 Research design

This quantitative study utilized a cross-sectional survey design which was placed online and distributed to participants through the sharing of its link through multiple social media platforms. This study assessed the independent variable which is lunch break autonomy, the dependent variable creativity at work, the mediator which is positive affect and finally the control variable which is psychological detachment. Information was gathered by using online self-reported questionnaires uploaded to Qualtrics, which is an online platform for surveys. Participants were given an informed consent sheet which provided them with information about the purpose of the study, the steps taken to ensure participant confidentiality and also a request for their consent. The measures taken to ensure confidentiality for participants include not publishing any information that could identify them and also deleting any data kept after five years. Data collection started on 28 January 2022 and ended on 27 June 2022.The findings of this online questionnaire are reflected as products of statistical analysis and summarized in the next chapter.

## 3.2 Population and sample

The target participants of this study are full-time employees in Malaysia who are currently working in occupations grounded in creativity and have a minimum of 1 year experience. The age range of

the participants has been set at 18 to 60 years old to recruit participants who are of legal age and not yet within retirement age. The creative industries are characterized by industries which are built upon individual creativity and which have the potential to create jobs and profit from the sales of products of creativity (Department for Culture, Media and Sport [DCMS], 2016). The present study focused on occupations grounded in creativity because occupations with low task novelty (e.g., data entry, accounting) may impact creativity at work (Kaufmann, 2004). More specifically, low-novelty tasks are usually characterized by tasks which are straight forward and do not require creative solutions, while high-novelty tasks are more complex and require novel solutions which provides opportunity for creativity to take place (Herrmann & Felfe, 2013). The occupations suggested by the DCMS were based on evaluation of data gathered from calculation of creative intensities of each industry, where industries had to have a minimum amount of creative intensity in order to qualify as a creative industry (see Appendix F). Being of Malaysian nationality is part of the study demographic because it provides a broad categorization of similar characteristics that participants could share and serve as a reasonable representative sample of the target population for this study. Responses were assessed based on two exclusion criterias, firstly the response had to be a complete answer to all the scales in the questionnaire, and secondly, participants who indicated a job position that suggests low-task novelty such as a secretary or front-desk receptionist. As mentioned previously, jobs that are characterized by low-task novelty tend to involve tasks that do not require much creativity at work and may not provide much opportunities for employees to be creative as compared to a high-task novelty job. Based on correlation results of past studies and the monte carlo power analysis for indirect effects software (see Appendix G), 251 participants were recruited for the study. Out of these participants, 191 responses were accepted and utilized for analysis. The details surrounding these responses are touched on further in the descriptive analytics segment of the results chapter.

### 3.3 Procedure and sampling approach

A cross-sectional survey was distributed to participants using an online survey platform, Qualtrics. Utilizing purposive and snowball sampling, participants who fulfill the criteria were contacted using social media mediums such as Facebook, Whatsapp, and Instagram through the instant messaging features. This is to get a hold of eligible family and friends who are connected to the researcher on these platforms. Potential participants were sent a message containing an invitation to participate and a link to the survey was attached to this message. By clicking on the link, participants are sent straight to the survey link. Participants were directed to the participant information consent sheet which contains information on the procedures, confidentiality of participation, and a check to determine whether the participant understands this information fully and consents (see Appendix A). In terms of duplicate responses prevention, the option to flag responses as duplicates is enabled on Qualtrics to detect any duplicates. This is followed by the demographics form (see Appendix E) and the measurements, which is the REQ scale for measuring lunch break autonomy (see Appendix B), I-PANAS-SF positive affect subscale to measure positive affect (see Appendix C), and finally SRCS to measure creativity at work (see Appendix D), followed by the additional information form (see Appendix E) to gather data for controlled variables. Finally, participants were thanked for their participation and be encouraged to share the link with those who fulfill the criteria of the study. This method was used until the target sample size was met. The utilization of this methodology to collect information from participants was submitted to and given clearance by the university's ethics review board (RE: U/SERC/94/2022). Additionally a pilot study was also conducted, the details of which are contained in the first part of the results chapter.

## 3.4 Measurements

Three instruments were utilized to collect data for lunch break autonomy, positive affect and creativity at work. The items were adapted to refer to the respective time frame for the variable they were measuring. Firstly, for the instrument measuring lunch break autonomy the phrase “during my lunch break” was added to the instruction section. This is done to properly capture the experience of lunch break autonomy during the lunch break, Secondly, for all three instruments, lunch break autonomy, positive affect and creativity at work, the phrase “in the past two weeks” was added to the instruction section to specify the time frame of within two weeks to capture the experiences of participants within those past two weeks. This is done to attempt to address the cross-sectional nature of the study where the instruments are utilized to only record participant states, which are known to fluctuate with time. Aside from that, a demographics form was used to gather participant age, occupation, gender and nationality. The additional information form was administered to gather data on work arrangements and the effect of SOPs on the work schedule of participants. This is mainly to control for the possible effect of Covid-19 SOPs on participant lunch break autonomy (see Appendix E).

**3.4.1 Lunch break autonomy**. Lunch break autonomy was measured using three items from a past study (Trougakos et al., 2014) which utilized the control subscale from the Recovery Experience Questionnaire (REQ; Sonnentag & Fritz, 2007). The three items used are “I felt like I decided for myself what to do” “I did exactly what I wanted to do” and “I took care of things the way that I want them done” which will be rated on a 5-point Likert scale. Responses ranged from “1 – I do not agree

at all" to "5 – I fully agree". A higher total score here would indicate higher lunch break autonomy. Cronbach's Alpha from a past study indicated internal consistency of .96 (Bosch et al., 2018)(see Appendix B for items)

**3.4.2 Positive Affect**. Positive Affect was measured using five items from the positive affect subscale of the short form Positive and Negative Affect Schedule (I-PANAS-SF; Thompson, 2007). Items consist of five positive affective states: active, determined, attentive, inspired and alert. Participants will be instructed to rate the extent to which they feel each of these states using a 5-point Likert scale ranging from "1 – very slightly" to "5 – extremely". A higher total score would indicate higher positive affect. A past study indicated internal consistency at Cronbach's Alpha value of .82 (Xie et al., 2020)(see Appendix C for items).

**3.4.3 Creativity**. Creativity at work was measured using thirteen items from the Self-rated creativity scale (SRCS; Tan & Ong, 2019). The sample items include "I suggest new ways to achieve goals or objectives", "I am a good source of creative idea", and "I exhibit creativity on the work when given the opportunity to". Participants will be instructed to rate the extent to which they agree or disagree with each statement using a 5-point Likert scale ranging from "1 – strongly disagree" to "5 – strongly agree". A higher total score would indicate higher creativity at work (see Appendix D). Cronbach's Alpha from a past study indicates an internal consistency of .90 for the scale (Tan et al., 2019)(see Appendix C for items).

**3.4.4 Psychological detachment.** Psychological detachment was measured using three items adapted from the psychological detachment subscale of the Recovery Experience Questionnaire (REQ; Sonnentag & Fritz, 2007). The three items used are “I forget about work” “I don't think about work at all” and “I distance myself from work” which will be rated on a 5-point Likert scale. Responses ranged from “1 – I do not agree at all” to “5 – I fully agree”. A higher total score here would indicate higher psychological detachment. Cronbach’s Alpha from a past study indicated internal consistency of .83 (Gaudiino & Di Stefano, 2021)(see Appendix B).

## 3.5 Statistical Analysis

SPSS was utilized to analyze the data such as mean and standard deviation of the data collected from the demographics form. Pearson correlation was conducted to examine the relationships among the three variables, while PROCESS Macro 4.1 (Hayes, 2022) in IBM SPSS Statistics for Windows Version 26.0 was used to test the mediating effect. The internal consistency of the instruments was evaluated using Cronbach’s Alpha coefficient. For examining the mediating role of positive affect (PA) in the relationship between lunch break autonomy (LBA), and creativity at work, a mediation analysis was performed. Specifically, the PROCESS Macro for SPSS was used to examine the direct and indirect effects of LBA on PA, and creativity at work (Model 4, Hayes, 2022). The indirect effect refers to the influence of the predictor variable (LBA) on the outcome variable (creativity at work) through the mediator (PA). According to Hayes (2022), if the confidence interval of the indirect effect is not equal to zero, there is a presence of mediation in the relationship. Additionally, psychological detachment is controlled for in the study’s mediation model. The stressor-detachment

model by Sonnentag & Fritz (2014), posits that psychological detachment is important for an individual's wellbeing. For instance, an individual with low psychological detachment may get burnt out from their workload and experience lower wellbeing as opposed to an individual who has greater psychological detachment and is able to deal with stress better. Utilizing this theoretical lens, it is probable that individuals with varying levels of psychological detachment may experience different levels of positive affect and as a result, their creativity at work may vary. Therefore, by controlling for psychological detachment, it was theorized that the effect of lunch break autonomy on positive affect and creativity at work could be isolated.

# CHAPTER 4

# RESULTS

## 4.1 Pilot study

To assess the feasibility of the study and evaluate the reliability of the instruments used to measure the study's variables, a pilot study was conducted on 40 participants. 26 participants fell in the age range of 20 to 34 years (65%), while the other 14 participants were in the 35 to 50 years (35%) age range. The average age of the 40 participants was found to be at 27.9 years (*SD* = 5.8). Gender wise, 22 participants were male (55%), while 18 participants were female (45%). Finally, 35 participants worked full time (87.5%) followed by 5 participants who worked freelance (12.5%). The participants were recruited through purposive and snowball sampling using social media messaging via online distribution of the survey through social media applications such as Facebook, Instagram and Whatsapp. Data collection started on 15 September 2021 and ended on 15 November 2021. Utilizing Cronbach's Alpha coefficient, the REQ which was used to measure LBA scored .931. While the I-PANAS-SF questionnaire for positive affect scored .808 and Self-rated creativity scale for creative scored .779. Since these instruments scored .70 and above, they are considered satisfactory in terms of reliability (Cortina, 1993). With these results, it was deemed that conducting the study with these instruments was feasible.

## 4.2 Descriptive analysis

Out of the 251 of responses collected, 191 of responses were fully complete and able to be used for data analysis. For the 60 responses excluded from the study; 1 response did not fulfill the criteria of being a Malaysian, 4 responses indicated non-consent, 6 responses did not provide information on occupation and 49 responses did not complete the survey, specifically, questions in several of the scales were not answered which led to missing values. For the 191 responses, 90 participants fell in the age range of 18 to 29 years (47.1%), 71 participants were in the 30 to 49 years (37.2%) age range, while the other 30 participants were in the 50 to 59 years (15.7%) age range. Gender wise, 101 participants were male (52.9%), while 90 participants were female (47.1%). 149 participants were self-employed (78%) followed by 42 participants who were not (22%). Finally, 68 participants were working from office (36.4%), followed by 35 working from home (18.7%), and 88 working hybrid (44.9%).

All variables were positively correlated with each other except for psychological detachment, which only has a significant positive correlation with lunch break autonomy (refer to Table 4.2). Correlation between positive affect and creativity at work was the highest, $r(189)= .532$, $p < .001$), while the correlation between lunch break autonomy and psychological detachment was the lowest $r(189)= .146$, $p=.044$.

**Table 4.1**

Demographics table

| Demographic Factors | Survey Sample (n - 191) | Percentage (%) |
|---|---|---|
| Gender | | |
| **Male** | 101 | 52.9 |
| **Female** | 90 | 47.1 |
| Age | | |
| **18-29** | 90 | 47.1 |
| **30-49** | 71 | 37.2 |
| **50-60** | 30 | 15.7 |
| Self-employed (Y/N) | | |
| **Yes** | 149 | 78 |
| **No** | 42 | 22 |
| Current working arrangement | | |
| **Office** | 68 | 36.4 |
| **Work from home** | 35 | 18.7 |
| **Hybrid** | 88 | 44.9 |

**Table 4.2**
Descriptive Statistics *(N=191)*

| Variables | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Lunch break autonomy | - | .276** | .146* | .273** |
| 2. Positive affect | .276** | - | .074 | .532** |
| 3. Psychological Detachment | .146* | .074 | - | .078 |
| 4. Creativity at work | .273** | .532** | .078 | - |
| *M* | 3.89 | 3.40 | 2.78 | 3.68 |
| *SD* | .90 | .76 | .97 | .52 |

Note: ***p*< .01, M = mean, *SD* = standard deviation

## 4.3 Inferential analysis

### 4.3.1 Normality test

According to Kim (2013), the acceptable range for kurtosis and skewness varies in accordance with the size of the research sample. Additionally it was also suggested that for sample sizes of 50 to 300, z-scores for skewness and kurtosis that lie within the range of negative and positive 3.29 indicate normal distribution. Because the z-scores for the current study lie within the range specified, it is reasonable to assume that the data gathered is normally distributed (see Table 4.3).

**Table 4.3**

Skewness and kurtosis

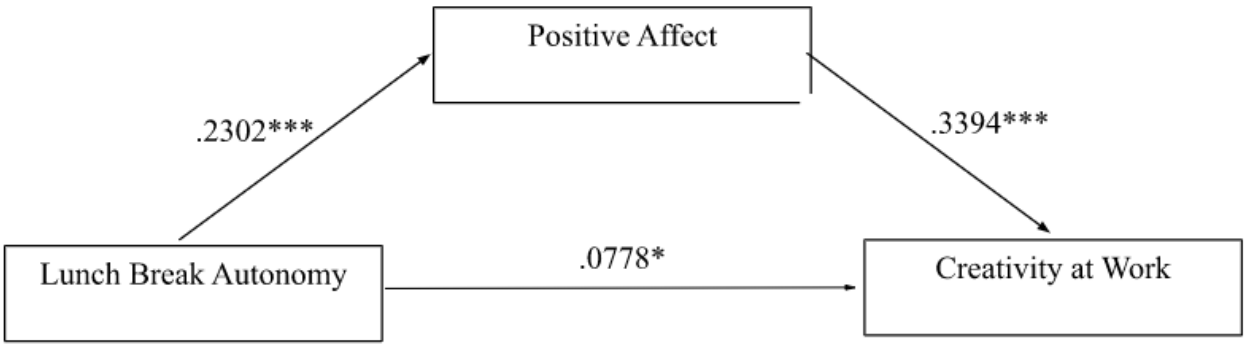
| Variables | Skewness | Kurtosis |
|---|---|---|
| Lunch break autonomy | -.982 | 1.192 |
| Positive affect | .008 | -.516 |
| Psychological detachment | .421 | -.391 |
| Creativity | -.067 | .177 |

### 4.3.2 Mediation analysis

PROCESS macro was used to conduct a mediation analysis to examine the mediating role of positive affect in the relationship between lunch break autonomy and creativity at work. Psychological detachment was controlled because it could influence employee positive affect, where the presence of psychological detachment could allow employees to experience greater positive affect as they are less stressed from work. The results support the hypothesis that lunch break autonomy is positively related with positive affect ($B$ = .2302, $SE$ = .0601, $t$ = 3.8302, $p$ < .001). Similarly, the regression results also support the study's hypothesis that lunch break autonomy is positively related with creativity at work ($B$ = .0778, $SE$ = .0375, $t$ = 2.0769, $p$ =.0392). Additionally, the results also suggest that positive affect is positively related with creativity at work ($B$ = .3394, $SE$ = .0438, $t$ = 7.7509, $p$ < .001). These results posit that the variables of lunch break

autonomy, positive affect and creativity at work are positively related with each other (see figure 4.1) and are aligned with hypotheses 1,2, and 3 of the current study.

With positive affect being set as the mediator in the relationship between lunch break autonomy and creativity at work, further reporting of the data from the PROCESS Macro is done through three focal points which revolve around the relationship between lunch break autonomy and creativity at work. Firstly, the direct effect of lunch break autonomy on creativity at work (*B* = .0778, *SE* = .0375, *p*=.0392, 95% *CI* [.003, .151]), which indicates statistical significance. This implies that lunch break autonomy is directly linked with creativity at work, where lunch break autonomy leads to greater creativity at work. Because the current study aims to investigate the underlying mechanism for the relationship between lunch break autonomy and creativity at work, the second and third focal points are considered. For the second focal point, the indirect effect of lunch break autonomy on creativity at work also appears to be statistically significant (*B* = .0781, *SE* = .0254, *p* < .05, 95% *CI* [.03, .13]). It can be said that lunch break autonomy leads to positive affect, and positive affect in turn leads to greater creativity at work, which can be used to explain the initial direct effect of lunch break autonomy on creativity at work. The final focal point, the sum of the direct and indirect effect, is known as the total effect. The total effect of lunch break autonomy on creativity at work is considered significant (*B* = .1559, *SE* = .0414, *p* < .001, 95% CI [.07, .23]). Additionally, the 95% bootstrap interval values of the indirect, direct and total effect being north of zero also suggest that they are significant (Hayes, 2022). In summary these results suggest that positive affect does indeed mediate the relationship between lunch break autonomy and creativity at work. Therefore hypothesis 4 is supported.




Note: *$p < .05$, **$p < .01$, ***$p < .001$

*Values presented are the unstandardized coefficients from SPSS

Figure 4.1: Regression coefficient for the relationship between LBA and Creativity at work with PA as a mediator

## 4.4 Summary

This chapter covered information on the initial pilot study conducted, details on the number of responses collected, descriptive statistics, correlations, normality tests and mediation analysis. For the mediation segment, results supported the hypothesis that LBA significantly predicts PA and Creativity at work, and that PA significantly predicts Creativity at work. Additionally it is also suggested that PA is a mediator in the relationship between LBA and Creativity at work, where lunch break autonomy indirectly increases creativity at work through positive affect. These results are in line with the hypotheses set for the study and support them (see Table 4.4). In terms of studies which have investigated the interaction of these variables in the context of employees in the creative industry, studies are limited to positive associations between creativity and greater task novelty (Herrmann & Felfe, 2013; Zhou et al., 2017).

**Table 4.4**

Summary of hypothesis testing

| Hypotheses | Results |
|---|---|
| H1. Lunch break autonomy will be positively correlated with creativity among working Malaysians | Supported |
| H2. Lunch break autonomy will be positively correlated with positive affect among working Malaysians | Supported |
| H3. Positive affect will be positively correlated with creativity among working Malaysians | Supported |
| H4. Positive affect will mediate the relationship between lunch break autonomy and creativity at work, where lunch break autonomy indirectly increases creativity at work through positive affect | Supported |

**Supported* indicates that the results of the study support the hypothesis

# CHAPTER 5

# DISCUSSION

## 5.1 Introduction

The main objective of the present study was to investigate the mediating role of positive affect in the relationship between lunch break autonomy (LBA) and creativity at work among working adults in Malaysia. The results support that LBA has an indirect positive relationship with creativity at work via positive affect. The findings of the study are discussed below. Moreover, the implications, limitations and future directions of these insights are further discussed in this chapter.

## 5.2 Hypotheses

### 5.2.1 Lunch break autonomy and creativity at work

Supporting the study's hypothesis, the results showed that LBA has a positive relationship with creativity at work. The finding is consistent with literature on autonomy satisfaction (Bartholomew et al., 2011), and SDT (Deci & Ryan, 2000). Moreover, it can be said that this is one of the first instances of autonomy in the context of lunch breaks being linked to creativity at work. These novel findings suggest that the presence of autonomy during an employee's lunch break can predict benefits such as positive affect and creativity at work. With reference to SDT and recovery literature (Trougakos et al. 2014), it can be inferred that the satisfaction of autonomy during an employee's

lunch break allows the process of recovery to take place. As a result of that, an employee is able to recuperate the mental resources used in their job and enjoy greater positive affect (Fritz et al., 2013; Bosch et al., 2018). In turn, this positive affect leads to increased creativity for the employee at work through the facilitation of thoughts conducive to creativity (Baas et al., 2008). In summary these results support the hypothesis that lunch break autonomy is positively associated with creativity at work and fulfills the objective of the study to investigate this relationship.

### 5.2.2 Lunch break autonomy and positive affect

Similarly, the results also indicate that LBA is positively linked with positive affect. In line with autonomy satisfaction literature (Levine et al., 2020; Oriol-Granado et al., 2017) and SDT, it can be theorized that the satisfaction of autonomy during the lunch break leads to employees enjoying greater positive affect. Trougakos et al. (2014), explain this positive relationship through the process of recovery, where autonomy satisfaction during the lunch break allows an employee to recover resources which are spent on job demands. This recovery of resources leads to employees experiencing positive affect as they are not overburdened by the stress and strain associated with job demands. Summarily these results support the hypothesis that lunch break autonomy is positively associated with positive affect and fulfills the objective of the study to investigate this relationship.

### 5.2.3 Positive affect and creativity at work

The results also support that positive affect is positively correlated with creativity at work. These results are aligned with past studies which have found positive associations between positive affect and creativity at work (Parke et al., 2015). As suggested by the literature, the positive association between the two can be explained by the facilitating effect that positive affect has on creativity at work (Baas et al., 2008, George & Zhou, 2007). Based on these theoretical perspectives, it can be said that the positive effect that employees experience catalyzes and sustains thoughts which eventually lead to creativity at work. In summary, these results support the hypothesis that positive affect is positively associated with creativity at work and fulfills the objective of the study to investigate this relationship.

### 5.2.4 Positive affect as a mediator

Finally, it was found that positive affect is a mediator in the relationship between LBA and creativity at work. These findings are not dissimilar from past research that has highlighted the role of positive affect in promoting creative thinking through the enhancement of thoughts facilitating creativity (Baas et al., 2008) and greater motivation (George & Zhou, 2007). Utilizing SDT and the addition of Fredrickson's (2004) broaden-and-build theory, it can be inferred that the presence of PA from autonomy satisfaction during the lunch break facilitates the broadening of one's mindset through the expansion of attention and cognition, allowing adaptive and creative thought processes to occur at work. Similar to the relationship between LBA and creativity at work, the finding that

PA could act as a mediator in the relationship between LBA and creativity at work can be considered novel in the context of the current literature as there appears to be a lack of studies examining this relationship. Summarily these results support the hypothesis that positive affect acts as a mediator in the relationship between lunch break autonomy and creativity at work and fulfills the objective of the study to investigate this relationship.

### 5.3 Theoretical implications

Theoretically, these results contribute to the growing body of literature on lunch breaks by examining the unexplored relationship between LBA and creativity at work. While literature has shown a positive relationship between autonomy and creativity (Sia & Appu, 2015; Xie et al., 2020), it remains unknown whether the relationship can be extended to the context of lunch breaks and creativity at work. The findings of this study provides a glimpse into autonomy satisfaction and its benefits in the context of lunch breaks by providing data that suggests a correlation between LBA and creativity at work.

The finding of the mediating role of positive affect in the relationship between LBA and creativity at work expands the existing literature by demonstrating the underlying mechanism of the relationship between LBA and creativity at work. In this case, the study proposed a theoretical framework that utilized SDT and broaden-and-build theory to come up with an explanation for the underlying mechanism. Specifically, the satisfaction of autonomy during the lunch break leads to a state of wellbeing characterized by PA (SDT; Deci & Ryan, 2000). This experience of PA leads to a

broadened mindset and thought processes that facilitate creative thinking (broaden-and-build theory; Fredrickson, 2004). The results of the study support the literature on these theories and demonstrate the feasibility of synthesizing them to explain the mechanism of the relationship between LBA and creativity at work.

Through the utilization of SDT and broaden-and-build theory to explain the role of positive affect in the relationship between autonomy satisfaction and creative thinking, the study was able to provide a more complete picture of the complex mechanism underlying the relationship between LBA and creativity at work. This provides a nuanced and comprehensive, albeit theoretical explanation of the as of yet unexplored relationship between LBA and creativity at work. Moreover, utilizing each of these theories and integrating them as an explanation not only makes the theoretical framework of this study robust but also validates the usefulness of each of the theories used.

Summarily, these findings contribute to lunch break literature by introducing findings which indicate the viability of examining autonomy satisfaction and creativity at work in the context of lunch breaks, as well as supporting the plausibility of synthesizing SDT and broaden-and-build theory to act as an explanatory mechanism for the relationship between LBA and creativity at work. This also highlights the importance of considering autonomy during lunch breaks for both employees and organizations.

## 5.4 Practical Implications

The findings of this study introduces the satisfaction of autonomy during the lunch break and the associated increase in creativity at work as an additional factor for organizations to consider when implementing policies at work. When it comes to policy-making that influences employee lunch break autonomy directly or indirectly, organizations may now consider creativity at work as a potential benefit in addition to the existing literature on recovery. Equipped with this knowledge, an organization could design and implement policies which revolve around encouraging employees to do what they enjoy during the lunch break which leads to positive affect and subsequent creativity at work. By providing room and encouraging employees to do what they want during the lunch break, their need for autonomy will be satisfied and this promotes employee wellbeing, as well as creativity at the workplace. Alternatively, organizations could train or incentivize leadership throughout the organization to be aware of the importance of LBA. This could create a work culture that also encourages LBA, which leads to positive affect and creativity among employees in the organization.

Additionally, with the identification of positive affect's role as a mediator in the relationship, organizations are provided with more information about how LBA elicits creativity at work. Organizations could zero in on this mechanism and design interventions or policies which specifically nurture LBA and subsequent positive affect. For instance, by taking the previous two examples mentioned above, an organization could implement measures to identify whether the policy or intervention is effectively eliciting LBA and positive affect. Through this method, an organization could theoretically utilize trial and error to design and modify their interventions to effectively encourage LBA, positive affect and creativity at work.

### 5.5 Limitations & future directions

In light of these findings, there are several limitations to this study. Firstly, in terms of the design of the study, there is a limitation in the form of sampling method and representativeness. Because the study only assessed individuals working in the creative industry, the sample does not represent the population sample in other industries. While the study has found positive correlations between the variables, other factors may impact the interactions between these variables in other industries. As mentioned previously, one of the main reasons the study was conducted among those working in the creative industry was due to task novelty. It would be interesting to explore how the absence of task novelty in industries which could be considered repetitive such as accounting could impact LBA, positive affect and creativity at work. Future studies could consider conducting studies which cover a larger and more general sample size such as the working population within the private sector to produce data that represents a larger population.

Secondly, the results of the study could be confounded by a segment of the study's sample who possess different working arrangements. Particularly, a segment of the sample population is composed of freelancers or business owners who potentially possess a greater degree of freedom over their working arrangements (lunch breaks included) compared to their counterparts who are working for employers. Several studies have found a link between self-employment and autonomy (Danziger & Valency, 2006; Prottas, 2008). Through SDT and Broaden-and-build theory perspective, it can be theoretically inferred that the greater freedom experienced by self-employed

could lead to greater autonomy satisfaction during the lunch break which leads to positive affect and subsequent creativity at work. This brings up the possibility that the greater freedom these self-employed individuals possess could provide them with more opportunities for autonomy satisfaction during the lunch break due to being able to choose when and how they have their lunch breaks. Future research could examine the potential implications of the self-employed demographic and its effects on autonomy satisfaction-related constructs in the context of lunch breaks.

Thirdly, it must be acknowledged that performing the study during the post-pandemic era could have caused unforeseen effects on the validity and generalizability of the results. It is generally understood that the COVID-19 pandemic has brought forth many changes to the lives of everyone (including work). As a result of the efforts of many governing bodies to manage the pandemic, there was a significant change in the direction of practicing remote working arrangements. Even today in the post-pandemic era, many companies have integrated remote working into employee work arrangement schedules in the form of hybrid work. The current study has attempted to control for these factors by taking into account current work arrangement schedules and how the pandemic has affected employee work-life. However, these measures may not be sufficient to cover the deeper effects that the pandemic may have on an employees' experience of lunch break autonomy, positive affect and creativity at work. The introduction of new working arrangement schedules such as flexible work could have influenced autonomy satisfaction during lunch breaks as employees may utilize them differently to fit new routines associated with flexible work. For instance, certain employees could have spent their lunch breaks at home for certain days of the week, where they have less opportunities for social activities with colleagues. This could impact employee ability to cope with perceived stress and impact their wellbeing (Luo et al., 2022). It is possible that some

employees might experience lower autonomy satisfaction during the lunch break and as a result, enjoy less positive affect and lose out on creativity at work due to perceived stress from a lack of social interaction during the lunch break. It is important that future studies consider the potential long-term impact of the pandemic on autonomy satisfaction and its benefits in the workplace.

Finally, in terms of fully minimizing the tendency for responses to be bias, the study has not included a marker variable, as well as common method bias prevention for the scales which were all measured on a 5-point Likert scale. Future studies could consider implementing the measures of including a marker variable and common method bias prevention to further increase the quality of data.

# CHAPTER 6

# CONCLUSION

The current study has contributed to the literature by exploring the unexplored relationship between LBA and creativity at work and the possible underlying mechanism for the relationship with positive affect as a mediator between LBA and creativity at work. Aside from that, the study also provides support for the individual theories of SDT and broaden-and-build theory by integrating them into the current theoretical framework. Based on the results of this study, it is inferred that there is a positive relationship between lunch break autonomy, positive affect, and creativity at work. The findings suggest that lunch break autonomy indirectly increases creativity at work through positive affect. Utilizing the current theoretical model, it can be said that employees who have their autonomy satisfied during the lunch break, enjoy the experience of positive affect, which facilitates creativity at the workplace. With the study's theoretical model and findings, organizations could use this useful information to design more effective lunch break policies or interventions that boost creativity at work. For example, organizations or managers could implement policies aimed at creating a work culture that nurtures LBA and increases positive affect which leads to greater creativity at work.

Although this study has provided valuable insights into the relationship between lunch break autonomy, positive affect, and creativity in the workplace, there are limitations to the study that should be considered, such as that the study was conducted on individuals working in the creative industry, the potential impact of individuals who are self-employed on lunch break autonomy

experienced and finally, the impact of the post COVID-19 pandemic on participant's LBA, positive affect and creativity at work. Future researchers may design studies to explore these relationships further with these limitations in mind.

In summary, the study has explored the relatively unexplored relationship between LBA and creativity at work, as well as provide insight into the underlying mechanism of the relationship. Additionally, organizations could use these findings to improve the wellbeing of employees through lunch break- related policies or interventions and reap the benefits of having a more creative workforce. Finally, the limitations outlined in this study can be considered by future researchers when exploring similar relationships or constructs.

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## Appendix A

### Participant Information Consent Sheet

**Universiti Tunku Abdul Rahman**
**Faculty of Arts and Social Science**
**Department of Psychology and Counselling**

### Introduction

We would like to conduct a study to determine **examine the possible effects of lunch break autonomy and positive affect on creativity among Malaysian employees in occupations related to the Creative Industries**

### Procedures and Confidentiality

The following survey would take approximately 5 to 10 minutes to be completed. All information provided will remain as private and confidential. The information given will be collected for the study and only used for academic purposes.

### Participation

All the information gathered will remain anonymous and confidential. Your information will not be disclosed to any unauthorized person. Participant in this study is voluntary, you are free to withdraw with the consent and discontinue participation in anytime without prejudice. The researchers do not foresee any harms/threats for participating in this interview.

Your responses will be coded numerically for data analysis, discussions and presentations. No personal information will be released or published. Only the researcher will have access to the raw data. The processed data which remains anonymous, however, may be shared with other researchers for academic purposes.

Data will be stored in the researcher's computer and online survey platform. Passwords are required to access the data. In keeping with the policy of the American Psychological Association (APA), this data will be deleted 5 years after the completion of the study.

The researcher will be glad to answer any questions regarding the procedures of this survey. You can address any of your concern or questions to the researcher.
Eddie Limbang Jr (eddie.limbang@1utar.my)

○ I understand the explanation above and **AGREE** to participate in this study.
○ **I DO NOT** want to participate in this study.

## Appendix B

### The Recovery Experience Questionnaire (Lunch Break Autonomy)

The following are a number of statements that reflect various ways in which we spend or think about our non-working hours in the **past two weeks**. Rate the degree to which you agree or disagree with each statement **during the lunch break** using the following scale (1 = Strongly disagree and 5 = Strongly agree). There is no right or wrong answer. Do not spend too much time with any one statement.

| Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | I felt like I decided for myself what to do. | 1 | 2 | 3 | 4 | 5 |
| 2. | I did exactly what I wanted to do. | 1 | 2 | 3 | 4 | 5 |
| 3. | I took care of things the way that I want them done. | 1 | 2 | 3 | 4 | 5 |

## Appendix B

### The Recovery Experience Questionnaire (Psychological Detachment)

The following are a number of statements that reflect various ways in which we spend or think about our non-working hours in the **past two weeks**. Rate the degree to which you agree or disagree with each statement **during the lunch break** using the following scale (1 = Strongly disagree and 5 = Strongly agree). There is no right or wrong answer. Do not spend too much time with any one statement.

| Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | I forget about work | 1 | 2 | 3 | 4 | 5 |
| 2. | I don't think about work at all | 1 | 2 | 3 | 4 | 5 |
| 3. | I distance myself from work | 1 | 2 | 3 | 4 | 5 |

## Appendix C

### The International Positive and Negative Affect Schedule Short Form (I-PANAS-SF) Question, Measure, and Item Order

Question: Thinking about yourself and how you normally felt in the **past two weeks**, to what extent do you generally feel:

Items in order:

Alert

Inspired

Determined

Attentive

Active

Interval measure: *never* 1 2 3 4 5 *always*

## Appendix D

### 13-item Self-rated creativity scale (Tan & Ong, 2019)

Here are a number of statements that may or may not apply to you in the **past two weeks**. Please select a number from **1 (strongly disagree)** to **5 (strongly agree)** for each statement to indicate the extent to which you agree or disagree with that statement.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | I suggest new ways to achieve goals or objectives. | 1 | 2 | 3 | 4 | 5 |
| 2 | I come up with new and practical ideas to improve performance. | 1 | 2 | 3 | 4 | 5 |
| 3 | I search out new technologies, processes, techniques, and/or product ideas. | 1 | 2 | 3 | 4 | 5 |
| 4 | I suggest new ways to increase quality of work. | 1 | 2 | 3 | 4 | 5 |
| 5 | I am a good source of creative ideas. | 1 | 2 | 3 | 4 | 5 |
| 6 | I am not afraid to take risks. | 1 | 2 | 3 | 4 | 5 |
| 7 | I promote and champion ideas to others. | 1 | 2 | 3 | 4 | 5 |
| 8 | I exhibit creativity on the work when given the opportunity to. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 9 | I develop adequate plans and schedules for the implementation of new ideas. | 1 | 2 | 3 | 4 | 5 |
| 10 | I often have new and innovative ideas. | 1 | 2 | 3 | 4 | 5 |
| 11 | I come up with creative solutions to problems. | 1 | 2 | 3 | 4 | 5 |
| 12 | I often have a fresh approach to problems. | 1 | 2 | 3 | 4 | 5 |
| 13 | I suggest new ways of performing work tasks. | 1 | 2 | 3 | 4 | 5 |

## Appendix E

### Demographic Information

Age:

Gender:

Nationality:

Occupation:

Job title:

Freelance: Y/N

Indicate activities done during lunch breaks in the past two weeks :-

Work/Relaxing alone/Engaging in activities with colleagues/Others (Please indicate)

### Additional Information Form

Current Working Arrangement: (Office/Work from home/Hybrid(Flexi)/Other)

Previous Working Arrangement (if applicable): (Office/Work from home/Hybrid(Flexi)/Other)

Indicate to what degree do you agree with the following statement:

The Covid-19 Pandemic has altered my working hours (e.g 9am-5pm before pandemic, 9am-10pm during pandemic)

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

The Covid-19 Pandemic has altered how I spend my lunch breaks

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

# Appendix F

## Table F1: Creative Occupations & Industries



**Table 4: The Creative Occupations (4-digital SOC2007) and Creative Industries (4-digit SIC2010)**

| Creative Occupations Group | SOC (2010) | Description | SIC (2007) | Description |
|---|---|---|---|---|
| Advertising and marketing | 1132 | Marketing and sales directors | 70.21 | Public relations and communication activities |
| | 1134 | Advertising and public relations directors | 73.11 | Advertising agencies |
| | 2472 | Public relations professionals | 73.12 | Media representation |
| | 2473 | Advertising accounts managers and creative directors | | |
| | 3543 | Marketing associate professionals | | |
| Architecture | 2431 | Architects | 71.11 | Architectural activities |
| | 2432 | Town planning officers | | |
| | 2435 | Chartered architectural technologists | | |
| | 3121 | Architectural and town planning technicians | | |
| Crafts | 5211 | Smiths and forge workers | 32.12 | Manufacture of jewellery and related articles |
| | 5411 | Weavers and knitters | | |
| | 5441 | Glass and ceramics makers, decorators and finishers | | |
| | 5442 | Furniture makers and other craft woodworkers | | |
| | 5449 | Other skilled trades not elsewhere classified | | |
| Design: product, graphic and fashion design | 3421 | Graphic designers | 74.10 | Specialised design activities |
| | 3422 | Product, clothing and related designers | | |
| Film, TV, video, radio and photography | 3416 | Arts officers, producers and directors | 59.11 | Motion picture, video and television programme production activities |
| | 3417 | Photographers, audio-visual and broadcasting equipment operators | 59.12 | Motion picture, video and television programme post-production |
| | | | 59.13 | Motion picture, video and television programme distribution |
| | | | 59.14 | Motion picture projection activities |
| | | | 60.10 | Radio broadcasting |
| | | | 60.20 | Television programming and broadcasting activities |
| | | | 74.20 | Photographic activities |
| IT, software and computer services | 1136 | Information technology and telecommunications directors | 58.21 | Publishing of computer games |
| | 2135 | IT business analysts, architects and systems designers | 58.29 | Other software publishing |
| | 2136 | Programmers and software development professionals | 62.01 | Computer programming activities |
| | 2137 | Web design and development professionals | 62.02 | Computer consultancy activities |
| Publishing | 2471 | Journalists, newspaper and periodical editors | 58.11 | Book publishing |
| | 3412 | Authors, writers and translators | 58.12 | Publishing of directories and mailing lists |
| | | | 58.13 | Publishing of newspapers |
| | | | 58.14 | Publishing of journals and periodicals |
| | | | 58.19 | Other publishing activities |
| | | | 74.30 | Translation and interpretation activities |
| Museums, galleries and libraries | 2451 | Librarians | 91.01 | Library and archive activities |
| | 2452 | Archivists and curators | 91.02 | Museum activities |
| Music, performing and visual arts | 3411 | Artists | 59.20 | Sound recording and music publishing activities |
| | 3413 | Actors, entertainers and presenters | 85.52 | Cultural education |
| | 3414 | Dancers and choreographers | 90.01 | Performing arts |
| | 3415 | Musicians | 90.02 | Support activities to performing arts |
| | | | 90.03 | Artistic creation |
| | | | 90.04 | Operation of arts facilities |

## Table F2: Creative Intensities of Industries



**Table 2: The Creative Intensities of the Creative Industries**

| SIC | Description | Creative Intensity (%) |
|---|---|---|
| 90.03 | Artistic creation | 91.5 |
| 74.30 | Translation and interpretation activities | 82.2 |
| 90.01 | Performing arts | 78.8 |
| 74.20 | Photographic activities | 77.8 |
| 60.10 | Radio broadcasting | 62.7 |
| 74.10 | Specialised design activities | 62.1 |
| 71.11 | Architectural activities | 61.5 |
| 70.21 | Public relations and communication activities | 59.3 |
| 58.14 | Publishing of journals and periodicals | 58.3 |
| 90.02 | Support activities to performing arts | 56.8 |
| 59.1 | Motion picture, video and television programme activities | 56.4 |
| 32.12 | Manufacture of jewellery and related articles | 56.2 |
| 62.01 | Computer programming activities | 55.8 |
| 59.20 | Sound recording and music publishing activities | 54.1 |
| 60.20 | Television programming and broadcasting activities | 53.5 |
| 73.11 | Advertising agencies | 50.5 |
| 58.11 | Book publishing | 49.9 |
| 58.13 | Publishing of newspapers | 48.8 |
| 73.12 | Media representation | 48.3 |
| 58.21 | Publishing of computer games | 43.1 |
| 58.29 | Other software publishing | 40.8 |
| 90.04 | Operation of arts facilities | 38.4 |
| 58.19 | Other publishing activities | 37.8 |
| 85.52 | Cultural education | 34.6 |
| 62.02 | Computer consultancy activities | 32.8 |
| 58.12 | Publishing of directories and mailing lists | 31.0 |
| 91.01 | Library and archive activities | 23.8 |
| 91.02 | Museum activities | 22.5 |

***Notes:***
*1. Creative intensity for SIC 59.1 is calculated at 3-digit level in order to capture the whole industry, as data at the 4-digit level are not statistically robust (due to low levels of employment of the 4-digit codes).*
*2. SIC codes 91.01 and 91.02 have been included after consultation, despite having creative intensities below the 30 per cent threshold. One reason they may have a lower creative intensity is due to large numbers employed in facilities maintenance in Museums, galleries and libraries.*
*3. SIC code 32.12 Manufacture of jewellery and related articles is included to represent the Crafts industry, although due to limitations in the underlying SIC codes (which are agreed internationally) this does not fully capture the crafts sector.*
*4. Some SIC codes with Creative Intensities greater than 30% were not included because they were based on very small sample sizes before weighting, and therefore could not reliably be considered Creative.*

# Appendix G

## Figure G1: Monte Carlo Power Analysis for Indirect Effects