

ENTREPRENEURIAL DEMANDS AND AFFECT OSCILLATION: THE
MODERATOR EFFECT OF EMPOWERING LEADERSHIP

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Abstract

Over the last decades, the nature of work and how individuals live their employee experience have been dramatically changing. New firms are rising, organizational cultures are shifting, and so the entrepreneurial context has become an interesting research scope for different academic areas. Considering the volatility and unpredictability of new-born technological business ventures, startup workers are considered to deal with unique job demands compared with regular employees. A need to be available 24/7, higher responsibilities and ability to deal with risk and uncertainty are challenging features that these employees – from founders to workers- must cope with in their daily lives. This setting converts the entrepreneurial context into an emotional roller coaster, where individuals can easily move from one core affective state to the other in the same temporal moment, triggered by events at the workplace. To maximize efficiency and save resources, these organizations are flattening hierarchies and expanding responsibilities to the employees. Empowering leadership assumes here a main role in how startup workers experience affectivity in this context. By conducting a study among 180 startup workers in Portugal, we found that in the presence of elevated levels of entrepreneurial demands, employees' emotions at work tend to oscillate more. Leader's behaviour is a key element for the presence of affect oscillation, since these demands were only related to affect oscillation when employees reported their leaders as having average or high levels of empowering leadership.

Keywords: affect oscillation; entrepreneurial context; empowering leadership; entrepreneurial demands

JEL Classification: M13 Startups; J23 Labor Demand

Resumo

Nas últimas décadas a natureza do trabalho e forma como os indivíduos vivem a experiência de ser colaborador tem mudado drasticamente. Novas empresas surgem, as culturas organizacionais transformam-se e o contexto de empreendedorismo tornou-se um âmbito de pesquisa interessante para diversas áreas académicas. Tendo em consideração a volatilidade e imprevisibilidade dos novos negócios tecnológicos, quem trabalha em *startups* lida com exigências de trabalho únicas, comparadas com funcionários de empresas normais. A necessidade de estar disponível 24/7, responsabilidades acrescidas e capacidade de lidar com o risco e incerteza são características desafiantes que estes trabalhadores - desde fundadores a colaboradores- têm de lidar no seu quotidiano. Este cenário torna o contexto empreendedor uma montanha-russa de emoções, onde os indivíduos conseguem facilmente passar de um estado afetivo para o outro no mesmo espaço temporal, devido aos eventos do ambiente de trabalho. Para maximizar eficiência e economizar recursos, estas empresas estão a tornar as suas estruturas hierárquicas mais planas e assim expandir responsabilidades pelos trabalhadores. A *empowering leadership* assume um papel fundamental na forma como os trabalhadores de *startups* experienciam a afetividade neste contexto. Através de um estudo realizado com 180 funcionários de *startups* em Portugal, descobrimos que na presença de elevados níveis de *entrepreneurial demands*, as emoções dos funcionários tendem a oscilar mais. O comportamento dos líderes é um elemento-chave para a presença de oscilação emocional, dado que estas exigências estão apenas relacionadas com a oscilação do afeto quando os funcionários alegam que os seus líderes demonstram níveis médios ou altos de *empowering leadership*.

Palavras-chave: oscilação do afeto; *entrepreneurial demands*; contexto de empreendedorismo; *empowering leadership*

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List of Abbreviation

AET – Affective Events Theory

AOW – Affect Oscillation at Work

EL – Empowering Leadership

HR- Human Resources

M – Mean

PANAS - The Positive and Negative Affect Scale

PES – Previous Experience in Startups

RU- Risk and Uncertainty

SD – Standard Deviation

I – Introduction

In recent years, entrepreneurship as a topic of interest has been growing up vastly in several areas of study -economics, sociology, psychology and so on. Europe and other industrialized areas of the globe have been experiencing considerable re-structuring in the last thirty years, changing from traditional manufacturing industries to new and more complex technological industries, resulting in a greater use of electronics and software – and changing the kind of work that employees do (Baptista & Thurik, 2007). In a study performed by Blanchflower Oswald and Stutzer (2001) that explored the latent entrepreneurship across nations, Portugal is in the top of the international ranking of entrepreneurial spirit (73%) together with Poland (80%) and USA (71%) among 23 worldwide countries and 25,000 responds. According to the 2016 Startup Heatmap Europe report, Lisbon is included in the top 5 startup hubs in Europe, therefore Portugal is currently in the startups’ roadmap, what makes it even more important to study Portuguese entrepreneurial environment.

Entrepreneurial activities and entrepreneurs create both personal and societal wealth, being essential elements of dynamic economies as powerful creators of growth, employment and productivity (Baumol & Strom, 2007). The positive and transformational outcomes for economy and society development are clear, but the effects for the individuals can be, in a certain way, a paradox.

Some authors support the stressful nature of creating a new venture, operating in extremely competitive markets (Kariv, 2008) or in risky unexplored sectors, while searching for a billion-dollar opportunity. This opportunity might take longer than expected to become profitable or even sustainable, so entrepreneurs often operate under huge financial pressure and constraints (Baron, Franklin, & Hmieleski, 2016). Entrepreneurs are many times seen as “workaholics” and spend long hours working, including after-work nights and weekends (Bradley & Roberts, 2004). These extreme situations can happen because they feel higher emotional investment in the work role, what can result in higher work-family conflicts and lower family satisfaction compared with regular employees (Parasuraman & Simmers, 2001).

Contrastingly, other studies show that entrepreneurs often demonstrate higher life satisfaction than regular employees (Bradley & Roberts, 2004), and can experience lower levels of stress since they demonstrate higher levels of stress tolerance and higher levels of psychological capital (Baron et al., 2016). Moreover, research reveals that working more independently and perceiving their jobs as more interesting, make entrepreneurs happier individuals when compared with common workers (Benz & Frey, 2004). Because of these contradictory results, the interest in studying the role of psychological well-being of entrepreneurs is growing.

Since the literature refers both to the detrimental and positive effects of entrepreneurial contexts to individuals' affect and wellbeing, it makes sense to expect that the affective states of people working in startups tend to oscillate frequently, either in valence (from positive and negative affect and vice-versa), or in arousal (from low to high arousal and vice-versa). Therefore, our study aims to compare the impact of entrepreneurial demands in the wellbeing of people working in this specific context (founders, co-founders and employees), namely in what concerns their affect oscillation. Additionally, we intend to analyse the role of empowering leadership as a possible boundary condition for this affect. We will test this moderator only in our subsample of startup workers. We expect that empowering leadership will enhance the negative effects of entrepreneurial demands on affect oscillation since it may be a way of enhancing workers identification with the organization, transforming founders' pains into employees' pains.

Our study enlarges the entrepreneurship literature, while focusing on people working in startups and not only entrepreneurs, because they are also affected by the characteristics of the entrepreneurial context. Moreover, Gruber, Kogan, Quidbach and Mauss (2013) show that regardless of the overall positive emotion levels, "greater variability in positive emotion was linked to detrimental psychological health outcomes, including decreased life satisfaction and global functioning and increased depression and anxiety and decreased daily satisfaction, life satisfaction, and subjective happiness" (p.4). Therefore, understanding the factors that can enhance or diminish the fluctuation and instability of employees' core affective experiences has also some practical implications.

Entrepreneurship it is a highly personal experience that can be defined in terms of a temporal stream of exclusive and novel events that are rich in affect (Morris, Kuratko

Schindehutte & Spivack, 2012). Cardon, Foo and Shepherd (2012) in their study regarding entrepreneurial emotions defend that “we have barely begun to uncover the most interesting questions concerning entrepreneurial emotion, much less to develop theories to address these questions and empirically examine them” (p.2).

The authors argue that, most of the studies regarding entrepreneurial affect are extensions from research in other contexts rather than on directly relevant empirical findings and highlighted the importance of understanding fluctuations on affect over time. The roles of volume, velocity, volatility, timing of events and affective states in entrepreneurial context are an area warranting of investigation (Morris et al., 2012). Following Uy, Foo and Song (2013), there is a need to go deeper on the understanding of the role of affect fluctuations in the early-stage venture implementation. Our study comes to answer to a recent call for more “cognitively hot” perspectives in entrepreneurship – more focused on emotions (Shepherd, 2015). And despite the growing interest in the dynamic nature of affectivity at work, the majority of the studies, according to Shapiro (2015), have conceptualized variability as unidimensional in nature, appraising the mean levels of affective states and overlooking the variability from a multidimensional perspective – a field that we propose to enrich.

We propose to answer the need to create more indices of affect variability and fluctuation (Beal & Ghandour, 2011), especially for assessing affect taking a joint consideration of two dimensions of the affect circumplex – valence and arousal.

Besides affect fluctuations, another “hot topic” that we will approach – and that it is more related with entrepreneurship than what superficially looks like, is leadership. This scope has begun to draw attention among entrepreneurship literature due to recognition that to exist a new venture creation, entrepreneurs must display effective leadership behaviours from the very first start – creating a vision, defining goals, and of course, gathering a self-driven and motivated team (Hmieleski, & Ensley, 2007). In this specific context, founders play a crucial leading role that truly detach them from corporate managers who often operate with more defined goals and work processes. According to the Hmieleski and Ensley (2007), the importance of leadership in this context has been fairly studied (e.g. Vecchio 2013, Brüggemann, 2014), but much remains to be learned about which forms of leadership behaviour are more effective in the startup environment. On a comparative study between startups and mature firms, Brüggemann (2014) finishes

his exposition recommending future research focused on testing and refining certain leadership styles as a way to foster greater benefits to companies.

Refining to a specific leadership style, empowering leadership plays a key role in dynamic environments where followers need to be able to materialize under uncertainty (Hmieleski & Ensley, 2007). Empowering is the act of strengthening individuals' beliefs for effectiveness as a process of internal changing. Feeling powerful makes individuals more confident to be able to cope with certain demands (situations, events or even people), what helps them to in fact better deal with those (Conger, 1989).

According to Magni and Maruping (2013), empowering leadership has been identified as being the most suitable leadership style in complex nonroutine circumstances "since it gives team members the autonomy and confidence to determine how to approach problem solving, facilitating a fruitful recombination of team-member resources within a short time frame" (p. 717). Since all these contextual and demanding features can summarize venture early stage frameworks, we will study this leadership style in the entrepreneurial context and how it can change the relationship between the presence of entrepreneurial demands and the frequency of affect oscillation on startup workers.

For that, and as a value-added feature to our study, we targeted a broader sample of individuals that belong to the entrepreneurial context as a working environment - not only the commonly labelled as entrepreneurs (often assumed as the venture creators, or founders). We decided to approach a sample of both founders, co-founders and startup employees.

The understanding of the entrepreneurial context is critical for nowadays organizational progress and for the sustainable development of organizational cultures. Entrepreneurial studies can contribute to understand the challenges faced by entrepreneurial firms and the relevant evolution of human resources practices, such as innovative talent acquisition, flexible career development and people-oriented cultures. Key desirable characteristics for employees focused on strategy are the same for entrepreneurial employees: having creative and innovative behaviour, coping with risk, long-term orientation, focusing on results, having flexibility to change, being able to cooperate, having independent behaviour, having tolerance for ambiguity and a preference to assume responsibility (Schuler, 1986).

Since startups are composed by entrepreneurial individuals, our contribution will be focused on those, taking into consideration the specific work characteristic that encompass their labour environment.

Being an intense experience, we will use the Affective Events Theory from Weiss and Cropanzano (1996) as a theoretical framework. According to Morris et al. (2012), this theory helps to understand how the events that comprise the venture creation experience and that vary in volume, velocity, and volatility, can result in emotional experiences.

Our study aims to create a better understanding of entrepreneurs' wellbeing focused on the experience of emotion and the affect oscillation that these individuals may feel while performing. Focused on these gaps and needs, our aim is to contribute to the recently uncovered research field of entrepreneurship. We will focus on the explicit demands that entrepreneurs find and fight in their daily life and in its impact on affect oscillation at work and the role of empowering leadership as a moderator in this relationship.

We start by exploring the main concepts and findings regarding entrepreneurial demands, affect oscillation and empowering leadership and how they relate to each other. Secondly, we explain in detail the method that we will use - data collection and measures. After, we present our quantitative results and discussion. To finalize, we suggest limitations, future research steps and practical implications.

II- Literature Review

The Entrepreneurial Context: founders and startup workers

The phenomenon of entrepreneurship has been a topic of interest for many recent studies. An entrepreneur can be conceptualized as a person who recognise and exploit new business-related opportunities by founding a new venture (e.g. Cardon et al., 2012; Uy et al., 2013). Shepherd, Wennberg, Suddaby and Wiklund (2018) define that “entrepreneurship involves the initiation, engagement, and performance of entrepreneurial endeavours embedded in environmental conditions, where an entrepreneurial endeavour is the investment of resources (i.e., cognitive, behavioural, financial, and/or other resources) into the pursuit (exploration and/or exploitation) of a potential opportunity” (p. 5)

Studies regarding entrepreneurial context comparing to regular organizations emphasize the higher levels of uncertainty, responsibility, and complexity present in these contexts. These settings are also characterized by intense time pressure and longer working hours - work characteristics that are stressors because the individuals experience those as overwhelming and can be assessed as something threatening (Stephan et al., 2018).

When a motivated individual decides to start a venture in an area that reflects his personal passion and interest, structuring this business gives her/him, alone or with a partner, a lot of personal satisfaction and self-commitment, where the venture becomes an extension of their own identity (Spivack & McKelvie, 2017). Some positive outcomes of this feeling of ownership include a sense of accomplishment, euphoria, or peace of mind given financial gains, that can act as emotional and psychological rewards that encourage the entrepreneur to continue with this behaviour, and potentially engaging in entrepreneurship. However, according to Spivack and McKelvie (2017) there are also potential negative outcomes that can be potentialized such as “depression/anxiety, lack of work/life balance, exhaustion and other physical symptoms such as heartburn, sleeplessness, or increased blood pressure” (p.21).

Chay (1993) analysed occupational differences and well-being between small business entrepreneurs and employees, assessing job strains measuring psychological stressors such as workload and time pressure concerning work. The author found out that

“higher levels of job demand, longer working hours and less time for leisure activities appear to be characteristic of those who are responsible for their own success” (p. 269), where entrepreneurs end working much more than the average 40-hour week.

Following Stephan (2018) review and research agenda on entrepreneurs’ wellbeing, these individuals also seen to have significantly higher autonomy or job control than regular employees. Entrepreneurs have the opportunity to select the method and content of their work, with freedom to decide how to organize and schedule tasks, and often don’t have a superior or managerial position to answer to. Having “high autonomy can shape how job stressors are experienced, namely as less threatening, stressful or straining” (Stephan 2018, p. 9). According to Stephan and Roesler (2010) entrepreneurs have a job situation characterized by both high control and high demands.

According to Morris et al. (2012) being a temporal experience, entrepreneurship is “largely unscripted, unpredictable, uncontrollable” (p.11). The authors find surprising how little is still known about how individuals live this experience, and how it is to be in “the moment” where the ventures take shape. When facing this reality “entrepreneurs are experiencing a temporal series of salient, interacting events that vary in volume, velocity, and volatility” triggered by affective events such as “repeated rejection by multiple financing sources, inability to meet payroll for weeks on end, acquisition of a major account that seemed unattainable, the successful launch of a revolutionary product, or alienation of ones’ family as a venture becomes all-consuming” (Morris et al., 2012, p. 12).

Although there are general job demands common to the majority of occupations, there are also distinguishing job demands on the entrepreneurial context. The expression ‘demands’ refer to “those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and/or psychological costs” (Schaufeli & Bakker, 2004, p. 296). These job demands, according to Schaufeli and Bakker (2004) may include for example physical demands, work pressure, cognitive demands, task complexity, task conflicts, and emotionally demanding interactions with clients.

However, “entrepreneurs have a job with specific tasks and responsibilities, such as searching and recognizing business opportunities, acquiring resources, and creating new

products or services “(Dijkhuizen, Veldhoven & Schalk, 2014, p. 71). Therefore, startup workers possess a job with specific tasks and responsibilities and work in a unique environment with elevated levels of uncertainty, change, responsibility and income uncertainty. Being an entrepreneur involves being exposed to work demands that are different from the ones working on a regular organizational context (Dijkhuizen, et al., 2014). Dijkhuizen and colleagues (2014) defend that a difference between entrepreneurs and employees in regular paid jobs is the fact that entrepreneurs carry a full responsibility for success and failure of their enterprise. Even when the individual is not a founder, he/she embraces a higher level of responsibilities of working in a small sized company with less than 5 years than in a well-established company (Hessels, Rietveld, & van der Zwan, 2017). Indeed, entrepreneurial ventures rely not only on founders, but also on “joiners” - workers that feel attracted by the startup work setting but don’t necessarily have desire to be founders themselves (Roach & Sauermann, 2015). These individuals are equally involved in the entrepreneurial work setting and are absorbed by the entrepreneurial activity in ways that have long been assumed unique to founders. Roach and Sauermann (2015) found individuals who showed stronger preferences for autonomy and risk are more interested in working in a startup and both founders and joiners share similar profiles when compared to those not interested or involved in the entrepreneurial context.

Dijkhuizen and colleagues (2014) identified the following specific demands for the entrepreneurial context: the need to have 24/7 availability with total commitment, broader and larger responsibility, tolerance of and coping with uncertainty, and risk-bearing and courage. This means that, next to regular job demands, such as emotional load, quantitative workload, and task complexity, entrepreneurs also experience specific entrepreneurial job demands like time demands, uncertainty and risk, and responsibility.

Living a daily life with these pressures make the entrepreneurial journey, an emotional one (Baron, 2008) and can turn the working context into a roller coaster.

Stephan (2018) from her review and research agenda published in January, defends that “we need to significantly widen and deepen our view to truly understand entrepreneurs’ work and mental wellbeing and its many unique features” (p. 33). In the present study we aim to understand the impact of entrepreneurial demands on affect oscillation at work for startup workers. The affective experiences of people working in entrepreneurial contexts

may fluctuate and show spikes of high and low arousal and positive and negative valence. Such variability went unnoticed on current researches, which are focused on mean levels of mental core affective states typically aggregated across specific situations. Considering the variability, uncertainty and dynamism of entrepreneurs' work it is natural that emotional volatility is present and fluctuations in their affect stands out.

According to this 2018 review and research agenda by Stephan, novel studies should be focused on measures of variability. Linking the need to better understand psychological wellbeing and the characteristic instability and ever-changing context where entrepreneurs and people working in entrepreneurial contexts operate, analysing the patterns of affective fluctuations triggered by this context can be a powerful and resourceful contribute (Houben, Van Den Noortgate, & Kuppens, 2015).

Affect Dynamics in Entrepreneurship

Perception, cognition and affect, according to Spivack and McKelvie (2017) have gained increased attention in the entrepreneurship research, with academics researching on the differences regarding patterns of psychological and neurological functioning among entrepreneurs compared with the regular population. Cardon e al. (2012) even introduced the concept of entrepreneurial emotion, referring to “the affect, emotions, moods, and/or feelings—of individuals or a collective—that are antecedent to, concurrent with, and/or a consequence of the entrepreneurial process, meaning the recognition/creation, evaluation, reformulation, and/or the exploitation of a possible opportunity” (p. 3). The study of emotions, moods, and affect (that can collectively be referred as affective phenomena) has been in the limelight in general and in what regards the entrepreneurial context.

Emotional episodes can be assumed as the cognitive appraisal in the transaction between a person and an object – that can be a person, an event, or a thing, whether past, present, future, real, or imagined. These are elicited by something, are reactions to something, and are generally about something (Ekkekakis, 2013). Moods, compared to emotions “are thought to be less intense, of longer duration and lack specificity with

regard to particular object or behavioural response” (Weiss & Cropanzano, 1996, p. 18), being more global and diffuse.

Moreover, core affect is a “neurophysiological state consciously accessible as the simplest raw (nonreflective) feelings evident in moods and emotions” (Russell, 2003, p. 148). It is represented by a circumplex with two dimensions: pleasure and arousal.

Taking into consideration the first dimension, core affect can be felt as unpleasant to pleasant (affective valence). Arousal concerns to an individual “state of readiness for action or energy expenditure” (Russell, 2003, p. 156) and it ranges from low to high mental activation. Therefore, core affect may be described using four quadrants: high activation pleasant affect (HAPA) such as feeling excited, high activation unpleasant affect (HAUA) such as feeling tense, low activation pleasant affect (LAPA) such as feeling relaxed and low activation unpleasant affect (LAUA) such as feeling depressed.

The vital role of affect in the entrepreneurial process has been widely recognized by scholars and practitioners alike (Uy, Sun, & Foo, 2017). The role of affect has started to make inroads into entrepreneurship research because both trait (how entrepreneurs feel in general) and state affects (how entrepreneur feel at a certain point in time) influence how individuals process information and how they evaluate situations and make decisions (Foo, 2011).

Baron (2008) highlights the relevance of affect in entrepreneurship for two reasons: first, the entrepreneurial environment, being so rapid and uncertain creates conditions for affective influences to be shapers of individuals’ cognitions and behaviours; second the nature of entrepreneurial tasks is frequently diverse and ambiguous and thus it has influence on individuals’ affect. Given these factors, Foo, Uy and Baron (2009) predicted the relevance of investigating the role of affect regarding new ventures. According to Uy et al. (2013) to gain a better understanding of affective influences in entrepreneurship, researchers should also consider affect dynamics as a property of affect. The impact of affect can be especially significant in circumstances characterized by high uncertainty and high engagement (Foo, 2011), what is representative of entrepreneurial environments.

While affect research has made great strides in the field of entrepreneurship, the existing studies have predominantly been focused on trait and state affect. Nevertheless, the Affective Events Theory (AET, Weiss & Cropanzano, 1996) posits that affective

states are reactions to workplace events, influenced by the context. Affective Events Theory directs attention towards events as a proximal cause of affective reactions, where “things happen to people in work settings and people often react emotionally to these events” (Weiss & Cropanzano, 1996, p. 11). This theory draws attention to emotional experiences at work and to the jobs’ experiential component, “having to do with the subjective, fluctuating experience of emotions” (Weiss, & Beal, 2005, p. 2).

According to Weiss and Beal (2005), events experienced by people at work, drive changes in their affect. So, studying affect at work calls for a look on the ongoing affect dynamics and not only short looks on core affective states. According to these authors, “research on mood and emotion clearly indicates that affect levels fluctuate over time and that the patterns of these fluctuations are predictable to a great extent” (p. 11). Therefore, we used AET as a theoretical framework to understand the consequences of the entrepreneurial context for individuals’ affect oscillation at work and look at entrepreneurship in an experimental and dynamic perspective in what regards the affective experiences it elicits. Morris et al. (2012) stated that entrepreneurship is a “lived experience” and “represents a cumulative series of interdependent events that takes on properties rooted in affect and emotion” (p. 11).

Bird and West (1997) stated that “temporal dynamics are at the heart of entrepreneurship” (p. 5) where the cumulative succession of unpredictable and rapidly changing events occurring in the entrepreneurial context enhance ongoing variations in the affect experienced by people working in these settings. “Venture experiences are riddled with interrupted plans, unexpected obstacles, conflicting goals, and unattainable aspirations” (Morris et al., 2012, p. 21) what forces the individual to walk down an ongoing process of reconstructing and renegotiating thoughts and actions and consequently, affect.

Being such a volatile and fast changing environment, the startups’ environment can be full of affective ups and downs, that can easily go from positive to negative states and row low to high arousal in a very short time. Individuals with high affect variability may be more emotionally reactive to events that occur at work given they experience affective states (Shapiro, 2015), where high levels of reactivity may require a greater effort and energy on daily basis, resulting in less energy to cope with negative events. Having less core energy to deal with negative events, the individual becomes more vulnerable to

those. Following Shapiro (2015), individuals that experience less affect oscillation may have more energy, what works as a protective mechanism for daily negative events.

When positive, the entrepreneurial process itself, can even be self-rewarding, but it is still loaded with extreme experiences. Being a highly unpredictable process (Baron (2008), entrepreneurial journey can be is chaotic, complex, and compressed in time, where entrepreneurs are supposed to make large investments regarding time, effort and energy and even their personal sphere (personal investment and self-esteem). These contextual demands can lead to anxiety, loneliness, stress, emotional exhaustion and finally to burnout (Wei, Cang & Hisrich, 2015).

Some scholars have been approaching positive feelings created by entrepreneurial events like the feelings of fulfilment, self-validation, richness and joy (triggered, for example, by virtuous performance – Schindehutte, Morris and Allen, 2006) while others have focused on the negative ones, such as anger, stress, anxiety and guilty (activated for example, by a venture failure - Shepherd, 2003). Moreover, according to Cardon, Wincent, Singh and Drnovsek, (2005), both episodic and enduring emotions are important, but they are not mutually dependent:

for example, even if a venture provokes feelings of frustration for an entrepreneur in its early or difficult stages, the entrepreneur may imagine that in the future the venture will be doing well enough to provoke feelings of satisfaction and pride. Both the episodic frustration and the enduring satisfaction may be experienced concurrently, and both may influence subsequent behaviours (p.2).

For entrepreneurs, the focal venture it is the specific object of emotion, where “as they construct their own reality, entrepreneurs are experiencing a temporal series of salient, interacting events that vary in volume, velocity, and volatility” (Morris et al., 2012 p. 12). Morris and colleagues (2012) define “volume as the number of events experienced, velocity as the rate at which those experiences are processed, and volatility as the degree or intensity due to peaks and valleys (highs and lows) associated with those events” (p. 12). We argue that these events can give rise to oscillation of peoples’ affect at work.

Contemporary affect scholars also found substantive individual differences in the extent to which people's affective experiences vary over time and the study of affect

dynamics has been growing up as an interest topic. People with high affect spin have highly varying affective experiences, they tend to experience more switching from positively to negatively valenced feelings and vice versa (Uy et al., 2017).

Affect spin for example, is a measure of variability in the dynamic process of the affective experience (Beal, Trougakos, Weiss, & Dalal, 2013). It incorporates two dimensions of affective experience and provides a more complete assessment of affect variability than unidimensional variance measures (e.g., standard deviation). According to the Beal et al. (2013):

someone low in affect spin might only fluctuate between states such as calm, bored, and interested over a period of time, whereas someone high in affect spin not only experience these states but also experience excitement, nervousness, agitation, joy, and any number of other states over that same time period (p. 595).

Following the general quest for entrepreneurial processes from an experiential point of view and analysing affect variability instead of using a static perspective, we propose a new construct to the literature- the concept of affect oscillation at work.

Affect oscillation at work refers to individuals' experience of fluctuation between their different affective states at work – from HAPA to LAPA, from HAPA to LAUA, from HAUA to LAUA, HAUA to LAPA (and vice-versa). In other words, when a person feels that her affect at work shifts frequently over time, changing, either in valence (from positive to negative, and vice-versa) or in activation (from low to high arousal, and vice-versa), in a short period of time. How can we differentiate this construct from other already used in the literature? Emotional variability, or affect lability (Dizen & Berenbaum, 2011), are defined as the magnitude, frequency, and speed of instability in each emotional state (Oliver & Simons, 2004). That is, they refer to the individuals' variation around their average level for each emotional state. Contrastingly, what we refer to as affect oscillation takes into consideration simultaneously more than one affective state, differentiating it from what has been studied as emotional variability or affect lability. Different from affect which, as emotional variability, is also an individual-difference measure built from repeated momentary assessments of ones' affective state spin (Kuppens, Van Mechelen, Nezlek, Dossche, Timmermans, 2007).

Nevertheless, unlike emotional variability or lability, “the logic behind affect spin is that variability along a single dimension of affect does not correctly capture variability in ones’ core affective experience” (Beal et al., 2013, p. 597). Hence, affect spin refers to the extent to which a person tends to experience the variety of different core affective states reflected in the two-dimensional affect circumplex (Russel, 1980). In that sense, it shares some similarities with the construct of affect oscillation, presented here. However, while having high-affect spin mean that “people experience the full spectrum of states that fall around the edge of the affect circumplex” (Beal et al., 2013, p. 597), having high affect oscillation means that people report having frequent shifts on their affect, from one core affect state to another, in a certain period. In fact, affect oscillation measures the frequency of change from one core affective state to another with an opposite valence and/or contrasting level of arousal, in a certain period (i.e., one week).

Therefore, this construct, in a way, tries to account for the temporal dynamics of intra-individual affective experiences at work, although it intends to portray only short-time dynamics. Moreover, this construct also diverges from emotional variability, affect lability, or affect spin in the sense that it does not intend to describe an individual difference or a trait, but instead it represents a description of a state experienced by the individual in a given point of time as a response to the work context.

Assuming that people working in the entrepreneurial settings such as startups are exposed to high ambiguity, unclear and fast changing responsibilities, interrupted plans, unexpected goals and unplanned actions, we expect that they will be more vulnerable to experience frequent affect oscillations. Moreover, we predict that, to be strongly responsible for what happens in the startup, fully available on a 24/7 mode and having to deal with uncertainty and risk, will increase susceptibly to switch frequently from one state to the another. Thus, we propose our first hypothesis:

Hypothesis 1. *Entrepreneurial demands are positively related with affect oscillation*

Empowering Leadership as a Moderator

Having in mind that most of the literature consider as entrepreneurs the venture creators and business leaders, in this study we aimed to understand how entrepreneurial

contexts can affect general startup employees and make them embody their leaders' duties and consequently pains. The idea of enhancing a new business success and creating a company is not sedimented in only a founder or a CEO, but also in an integrated team to be managed and motivated to follow the same vision and mission.

According to Jensen and Luthans (2006), "although each has generally ignored the other, the fields of entrepreneurship and leadership have arguably been among the most explosive within recent years" (p. 254). Vecchio (2013) even considers that entrepreneurship should be studied as a type of leadership that occurs in a specific setting. Following Lee, Willis and Tian (2018), business competition, economic shifts and technological developments are enhancers of change in organizational structures and the nature of work. During the last decades, researches have been continuously refuting the idea that leadership within organizations stem in a top-down hierarchical process, mastered by singular individuals like CEOs (Ensley, Hmieleski & Pearce, 2006). As such, workers are trusted to handle duties and responsibilities that until now were shouldered only by top management.

Alongside efforts to maximize efficiency, many organizations are flattening their hierarchies and consequently expanding the responsibilities of lower level employees and the complexity of their roles, tasks and duties. Literature tells us that leadership approaches are expanding in ways that support changes in the business environment and enabling organizations to better cope with rapid, continuous change and uncertainties – characteristic of start-up workers day to day reality.

Leaders have an influential role in how employees experience their work. Empowerment is the "act of strengthening an individuals' beliefs in his or her sense of effectiveness (...) Empowerment is not simply a set of external actions; it is a process of changing the internal beliefs of people" (Conger, 1989, p.18).

The concept of empowering leadership, according to Tuckey, Bakker and Dollard (2012) involves encouraging and facilitating employees to lead and manage themselves, through behaviours oriented towards self- development. Differs from delegation which tends to focus specifically on the transfer of power. Contrastingly, empowering leadership involves a wider range of behaviours, such as expressing confidence in employees and assisting in building employee capabilities (Ahearne, Mathieu, & Rapp, 2005). Differs also from transformational leadership, more focused on leaders' charisma that can be

inspiring and promote intellectual stimulation but still not transfer much control or power to subordinates, retaining in leaders the majority of the authority (Bass, 1997).

Arnold, Arad, Rhoades and Drasgow (2000) represent empowering leadership by five dimensions:

1. Leading by example - refers to a set of behaviours that show the leader's commitment to his or her own work as well as the work of his/her team members, for example working as hard as he/she can and working harder than team members.
2. Coaching - refers to a set of behaviours that educate team members and help them to become self-reliant, such as making suggestions about performance improvements and helping the members to achieve these improvements.
3. Participative decision making - refers to a leader's use of team members' information and input in making decisions, such as encouraging team members to express their ideas and opinions and involve them in relevant decisions.
4. Informing - refers to the leader's dissemination of company wide information such as mission and philosophy as well as other important information, for example explaining company decisions to the team and informing the team about new developments in organizational policy
5. Showing concern/ Interacting with the team - is a collection of behaviours that demonstrate a general regard for team members' well-being and interfacing them as all, for example take time to discuss members problems and keep on track on those.

Leaders who empower employees give them more control, autonomy, responsibility over their work and development support, making them believe in their ability to perform meaningful work and play more influence in their environments, as well as work independently and exhibit adaptive behaviours (Kim, Beeh, & Prewett, 2018; Amundsen, & Martinsen, 2014). Curiously, some of the characteristics are linked with the ones that Matthews (1996) defined as vital for a successful entrepreneur - desire for independence, sense of purpose, tolerance of uncertainty, perseverance, self-esteem, salesmanship and self-discipline. Theoretically, empowering leadership can be an effective leadership style for both employees and organizations because it generates intrinsic motivation of

employees, linking to favourable outcomes including job satisfaction, engagement, creativity, and work performance and extra-role behaviours (Kim et al., 2018).

Employees' psychological empowerment may be one of the profitable personal resources in the workplace and according to Kim et al. (2018) meta-analysis, 23 studies found that "empowering leadership is an influential leadership style for promoting employees' perceptions of psychological empowerment consisting of meaning, competence, self-determination, and impact" (p. 4). Moreover, employees working with empowering leaders who encourage "their initiative and responsibility towards the job experienced enhanced feelings of self-efficacy and psychological ownership (including facets of self-identity, belongingness, and accountability" (Kim & Beehr, 2017, p. 474).

Psychological ownership is defined as "the state in which individuals feel as though the target of ownership (...) is theirs" (Pierce, Kostova, & Dirks, 2003, p.86). Avery and colleagues (2012) affirm that "psychological ownership is characterized by individuals feeling more efficacious about working with the target, feeling accountable for what happens with respect to the target, experiencing a greater sense of belongingness to the target and feeling a sense of personal identification with the target of ownership" (p. 24). More likely to feel autonomy, having opportunities for decision making and self-managing their work, empowered workers end up being more accountable for work outcomes and experience meaningfulness and positive work (Kim & Beehr, 2017).

According to the authors, psychological empowerment and self-efficacy are key processes in empowering leadership behaviours because they are motivational by nature. Self-efficacy is the individual's belief in his or her capacity to perform tasks successfully (Bandura, 1977) and psychological ownership is the employees' feelings that the organization is "theirs" and sense of shared responsibility toward its success (Mustafa, Martin, & Hughes, 2016). They can be conceptualized as a motivational construct since empowering others equates with motivating them to achieve as well as enabling rather than merely delegating responsibility and authority, increase expectations and enforce obedience.

According Pierce, Kostova, Dirks and Kurt (2011) "although researchers have recognized that psychological ownership may be an important organizational phenomenon, the current organizational literature on this topic is rather fragmented and underdeveloped" (p. 298). Psychological ownership can be intrinsically rewarding, because the success of

the organization is a result of your work, that can be translated in your own success. According to Kim and Beehr (2017), in expectancy theories, employees who feel ownership of the organization can expect to feel prouder of companies' success, because they are more engaged. Considering the job and organization as possessions, the sense of responsibility and self-identity increase if the job and organization are successful. Nevertheless, feeling committed with the excellence of their organization through high performance, employees may feel more internal pressure and responsibility. More responsibility, autonomy and pressure to perform with excellence – so the increase of work demands - can lead employee to a job induced tension that creates a process called burdening (Cheong, Spain, Yammarino, & Yun, 2016). This process creates job induced tension - because employees feel more strains associated with tasks while dealing with more autonomy, and role overload - since employees might feel that are assuming managers responsibilities and duties.

Therefore, we argue that when leaders in startups empower their employees, they will enhance their psychological ownership regarding that startup or task, increasing their feelings of possessions towards the organization, “becoming more protective of, responsible for and attached to it” (Kim & Beehr, 2017, p. 466). In other words, we posit that empowering startups leaders make joiners embrace startup pains as if they were founders. Hence, we expected that empowering leaders will enhance the detrimental effects on employee's affect oscillation in response to volatile uncertain and ambiguous entrepreneurial working context.

Considering the characteristically behaviours of empowering leadership, Sharma and Kirkman (2015) suggest that the combination of empowering leadership with workplace stressors may overwhelm employees, and typically positive effects of empowering leadership on employee outcomes like performance can be weakened by challenge and hindrance stressors. In addition, individuals who experience elevated levels of demands might be less receptive to the motivational influence of empowering leadership. Also, Humborstad and Kuvaas (2013) found that when leaders overestimated employees' expectations regarding on-the-job empowerment, employees felt high role ambiguity and low intrinsic motivation. In addition, Sharma and Kirkman (2015), collected several studies that demonstrate that self-led groups have been shown to induce lower levels of member satisfaction and commitment, and higher levels of absenteeism,

turnover, stress, and burnout because of the associated levels of responsibility and pressure to accomplish (p. 216) and even stress the leaders themselves (Wall, Kemp Jackson, & Clegg, 1986; Cordery, Mueller, Walter & Smith, 1991).

In the same way, according to Kim et al. (2018) meta-analysis, “empowering leadership in its emphasis on freedom and self-management, may leave some employees with greater workloads than they prefer and may therefore induce job-related tension” (p. 11). However, since only a few studies examined the link between empowering leader behaviours and undesirable employee emotions, these authors ask for future research on this aspect. Therefore, our study aims also to address this quest.

Following Wall et al. (1993) statement: “we encourage researchers to explore the extent to which empowering leadership has (a) less positive effects and (b) when and why a seemingly positive leadership approach could end up having unintended, counterintuitive negative effects” (p. 219). Thus, we decided to analyse this controversial scope for our second hypothesis, expecting the following.

***Hypotheses 2:** Empowering Leadership moderates the relationship between entrepreneurial demands and emotional oscillation, such that the relationship between entrepreneurial demands and emotional oscillation will be enhanced for higher levels of empowering leadership, comparing to lower levels of empowering leadership.*

III – Method

Data Collection and Sampling

Our data for was collected in startup companies in Portugal, using an online survey through Qualtrics software. Our sample had a total of 180 respondents, where 77 were founders or co-founders and 103 were employees.

The survey was launched in mid-April and stayed open until end of June and the participants were contacted through professional social networks or directly in incubators. All participants were assured that their responses would remain anonymous. Nevertheless, they could leave their email if they were interested in receiving overall study results section – 67% of the respondents left their email.

Regarding sociodemographic characteristics, 89% were Portuguese, 64% were male, 57% had a Master's Degree and 77% of the participants had less than 35 years old ($M= 30$; $SD= 7.05$; $Min = 20$; $Max=61$). For 61% of the participants this is their first time working in a startup.

The majority of the startups had less than 10 members (59%); 64% had their own office and 60% of the startups already received investment. Twenty seven percent of the startups belong to the software sector, 14% from e-commerce and 8% Hardware & IOT.

Measures

Entrepreneurial Demands. To evaluate the perceived entrepreneurial demands, we used the Entrepreneurial Job Demands Scale, from Dijkhuizen et al. (2014). After a two-stage validity test, the authors shaped a three dimensions scale – “time demands”, “responsibility” and “uncertainty and risk” created to fill the need of having a specific measure for entrepreneurial job demands. The answers for these items were made using a 7-point Likert Scale (1= “Never” and 7 = “Always”).

Time demands was measured using 5 items (e.g. “how often in the last month you felt that you had to be available for your company 24 hours a day). The internal reliability of this index was .88 for founders and co-founders and .90 for employees. Responsibility was measured using a 3 items dimension (e.g. “how often in the last month you felt the failure of your company as your personal failure). The internal reliability of this index

was .74 for founders and co-founders and .79 for employees. Uncertainty and risk were originally measured with a 6 items dimension. However, we only used 4 (e.g. "how often in the last month you found it difficult to cope with uncertainty about the functioning of yourself as entrepreneur?"), since two of them were more related with only CEO positions (e.g. "do you find it hard to take the initiative to lead your company on the right track?") The internal reliability of this index was .84 for founders and co-founders and .82 for employees.

To examine the factor structure of Entrepreneurial Job Demands scale, we run a principal component factor analysis. The Kaiser-Meyer-Olki value is .88 and Bartlett's test sigma is 0, and after Varimax rotation we found out that "time demands" and "responsibility" load in one factor and "risk & uncertainty" in other one, meaning that we should use for only two dimensions instead of three. The first factor – that will be named only as "entrepreneurial demands"-, present a Eigenvalue of 5.80 and explains 48.34% of the variance ($\alpha_{\text{founders}} = .90$; $\alpha_{\text{employees}} = .90$)

The second variable, "risk & uncertainty" presents an Eigenvalue of 2.03 and explains 16.88% of the variance. These two factors together explain 65.22% of the variance ($\alpha_{\text{founders}} = .84$; $\alpha_{\text{employees}} = .82$)

The existence of two different factors might also be explained by the concrete nature of the demands: both time demands (the feeling of being available 24 hours) and responsibility (broader and larger concern regarding work) are more directly related with the enterprise characteristics that propel certain feelings and emotions while risk & uncertainty dimension itself is more related with the individual ability to cope with risk and uncertainty regarding the enterprise nature, so as an individual trait.

Affect Oscillation at Work. Over the years, researchers have explored diverse ways to operationalize patterns of emotion dynamics. The patterns that have been most often used, according to Houben et al. (2015) are measures based on emotional variability (range or amplitude of someone's emotional states across time) and emotional instability (the magnitude of emotional changes from one moment to the next).

To measure these affect oscillations the scales more widely used are Affective Lability Scales (ALS, Harvey, Greenberg, & Serper, 1989) a 54-item survey reduced to a short form of 18 items by Oliver and Simons in 2014 and Affect Spin (Kuppens et al.,

2007; Beal & Ghandour, 2011). ALS has items such as “at times I feel just as relaxed as everyone else and then within minutes I become so nervous that I feel light-headed and dizzy,” and “there are times when I feel absolutely wonderful about myself but soon afterwards I often feel that I am just about the same as everyone else.

Affect Spin is measured calculating the standard deviation of individuals core affective experience, evaluated with the Positive and Negative Affect Scale (PANAS, Watson, Clark & Tellegen, 1988) PANAS describes feelings and emotions such as feeling afraid, excited, upset and ashamed measured in different points of time. Both scales concern to emotions in general and are not focused on the working context. Moreover, ALS measures an individual general trait while affect spin refers to the “experience of the full spectrum of states that fall around the edge of the affect circumplex” (Beal et al., 2013, p.597).

Following Beal et al. (2013) “the logic behind affect spin is that variability along a single dimension of affect does not correctly capture variability in one’s core affective experience” (p. 597). Since our study pretended to measure the oscillation of emotions felt at work, this measure is context specific – refers to what is felt at work- and evaluates, in its content, the change from one quadrant of core affect to the other while using the circumplex model. Therefore, we adapted the Affective Labiality Scale while using core affect at work anchors described by Warr, Bindl, Parker and Iceoglu (2014), describing HAPA (high activated pleasant affect: top-right quadrant), LAPA (low activated pleasant affect: bottom-right quadrant) HAUA (high activated unpleasant affect: top-left quadrant) and LAUA (low activated unpleasant affect: bottom-left quadrant)

These four quadrants vary in level of pleasantness and arousal. Level of pleasure may be accompanied by high or low levels of arousal and a level of arousal may be either pleasurable or unpleasurable (Warr, 1990). This model has been widely used. Cardon et al. (2005) also used this model in their study regarding emotions in entrepreneurship, calling it the “Core Affective States of Entrepreneurs”.

Therefore, we used 8 items describing emotional oscillation at work from LAPA to HAUA (“in the same week I moved from feeling at ease to feeling very anxious”), from HAUA to LAPA (“in the same week I moved from feeling worried at work to feeling relaxed”), from LAPA to (HAPA “in the same week I moved from feeling calm at work to feeling excited”), from HAPA to LAPA (“in the same week I moved from feeling inspired at work to feeling laid back”), from LAUA to HAPA (“in the same

week I moved from feeling hopeless at work to feeling enthusiast”), from HAPA to LAUA (“in the same week I moved from feeling joyful at work to feeling depressed”), from LAUA to HAUA (“in the same week I moved from feeling dejected at work to feeling tense”) and from HAUA to LAUA (“in In the same week I moved from feeling nervous at work to feeling despondent).

We asked the participants, how frequently, thinking about the previous month, in the same week they felt moving from one emotion to the other while at work. Participants answered using a 7-points Likert scale (1= “Never” and 7= “Always”). The internal reliability of this index was .89 for founders and co-founders and .81 for employees.

Empowering Leadership. To measure empowering leadership, we used 6 items from a measure of Daan Van Knippenberg provided by this author. The response scale was ranged from (1) Completely disagree to (7) Completely Agree. Two examples are “my manager coaches my team in working more effectively together” and “my manager helps my team in learning to solve its own problems.” The introduction had a note informing the participants that if they were CEOs, they should not answer these items. So, from the 180 respondents 103 answered these items – the employees sample. The Alpha Cronbach value for employees was .93.

Control Variables. We included age (Carstensen, Turan, Scheibe, Ram, Ersner-Hershfield, Samanez-Larkin & Nesselroade, 2011), gender (1= Male, 2 = Female; Nolen-Hoeksema, 201; Parasuraman & Simmers, 2001), education (1= High School, 2 = Bachelor’s Degree, 3 = Master Degree and 4 =Doctoral Degree) and experience in startups (1 =“ I worked in a startup before” and 2 = “It’s my first time working in a startup”, Uy et al., 2013; Morris et al., 2012) as control variables, since literature gave us several evidences that these variables may have influence in how individuals perceive affect spin and emotional regulation.

IV– Results

Means, standard deviations, and correlations for the variables addressed in this study are presented in Table 1 and 2, regarding our two different subgroups – founders and employees.

Table 1. Descriptive statistics and correlations among variables (founders, n= 77)

<i>Variable</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. AOW	2.85	1.07	(.89)						
2. ED	4.83	1.40	.41***	(.90)					
3. RU	3.24	1.17	.34**	.31**	(.84)				
4. Age	32.13	6.75	-.14	-.02	.12	-			
5. Gender ^{a)}	1.19	.40	.15	.04	.22	.07	-		
6. Education ^{b)}	2.48	.71	-.01	.01	-.14	.11	.08	-	
7.PES ^{c)}	1.49	.50	-.01	-.00	-.02	.21	-.16	.12	-

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Note: AOW = affect oscillation at work; ED = entrepreneurial demands. Cronbach's alphas are shown in parenthesis.

^{a)} 1 = Male, 2 = Female;

^{b)} = High School, 2 = Bachelor's Degree, 3 = Master Degree, 4 = Doctoral Degree;

^{c)} 1 = With previous experience, 2 = First experience.

Results show that entrepreneurial demands and risk and uncertainty are positively related to affect oscillation at work for both founders/co-founders (r entrepreneurial demands = .41, $p \leq .001$; r risk = .34, $p \leq .01$) and startup employees (r entrepreneurial demands = .26, $p \leq .01$; r risk = .32, $p \leq .001$). Therefore, data supported our first hypothesis that stated that entrepreneurial demands were positively related with affect oscillation at work.

None of the control variables (age, gender, education and previous experience in start-up) were significantly associated with emotional variability in both samples. Therefore, we did not include them in the regression models.

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Table 2. Descriptive statistics and correlations among variables (employees, n = 103)

<i>Variable</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1.AOW	2.70	.87	(.81)							
2.ED	3.42	1.43	.26**	(.90)						
3.RU	3.16	1.20	.32***	-.48***	(.82)					
4.EL	4.96	1.67	-.07	-.17	-.43***	(.93)				
5.Age	28.70	6.93	-.03	.18	-.02	.03	-			
6.Gender ^{a)}	1.48	.50	.07	.06	.08	.06	-.17	-		
7.Education ^{b)}	2.55	.67	-.06	-.01	.08	-.01	.10	.14	-	
8. PES ^{c)}	1.31	.47	-.08	-.09	.02	-.17	.19*	-.09	-.09	-

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Note: AOW = affect oscillation at work; ED = entrepreneurial demands; RU = risk & uncertainty; EL = Empowering Leadership; PES= Previous Experience in startups. Cronbach's alphas are shown in parenthesis.

^{a)} 1 = Male, 2=Female;

^{b)} 1=High School, 2 =Bachelor's Degree, 3 = Master Degree, 4 = Doctoral Degree;

^{c)} 1 = With previous experience, 2=First experience

We conducted hierarchical regression analyses to test the interaction between entrepreneurial demands and empowering leadership, in the mediation of employees' affective oscillation at work, as proposed in H2. These results only encompass the employees' sample since these are the ones affected by their leaders' behaviours – startup founders and co-founders. We used the PROCESS macro for SPSS, model 1 (Hayes, 2017) to test the moderation based on 5000 bootstrap samples. Coefficients were considered significant when confidence intervals did not include zero.

Table 3. Regression Analysis on entrepreneurial demands with empowering leadership as a moderator

Variable	Effect	se	p value
Entrepreneurial Demands	.16	.06	.008
Empowering Leadership (EL)	-.32	.05	.534
Entrepreneurial Demands x EL	.07	.03	.046
<i>Adjusted R²</i>	.11		

Demands and EL were mean-centered before entry into the regression equation and the creation of the interaction term (Aiken & West, 1991). Results show that the interaction of entrepreneurial demands and EL was significant in the prediction of affect oscillation at work (effect = .07, se = .03, $p=.05$; 95% CI [.00, .13]) for employees working in startups.

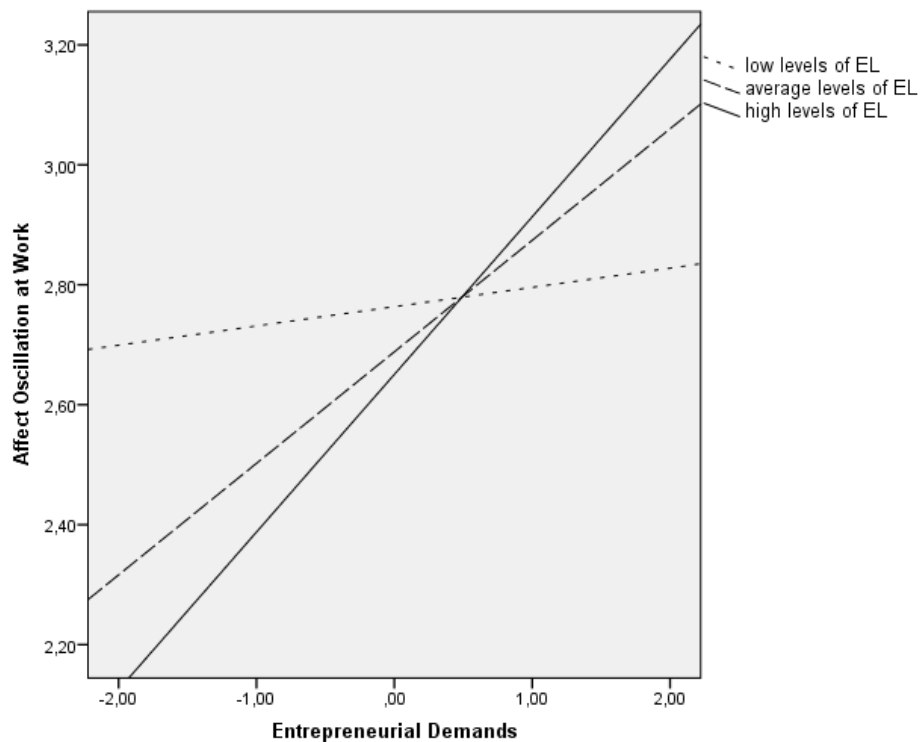


Figure 1. Affect oscillation at work as a function of entrepreneurial demands and empowering leadership. Regression lines are drawn at 1 standard deviation above and below the mean of empowering leadership.

The simple slopes for the interaction effect are displayed in Fig. 1. The results show that the relationship between entrepreneurial demands and affect oscillation at work was not significant when EL is lower (effect = .03 *se* = .08, $p=.70$; 95% *CI* [-.14, .20]). For average and higher levels of EL, entrepreneurial demands are positively associated with affect oscillation at work (effect = .19, *se* = .06, $p=.003$; 95% *CI* [.06, .31]; effect = .26, *se* = .08, $p=.0016$; 95% *CI* [.10, 0.42] respectively). These results supported our hypothesis 2.

Table 4. Regression Analysis on Risk and Uncertainty with Empowering Leadership as a Moderator

<i>Variable</i>	<i>effect</i>	<i>se</i>	<i>p value</i>
Risk & Uncertainty	.21	.08	.007
Empowering Leadership (EL)	-.01	.06	.890
Risk and Uncertainty x EL	.07	.04	.100
<i>Adjusted R²</i>	.105		

Regarding risk & uncertainty, the interaction with empowering leadership was not significant ($effect=.07$, $se=.04$, $p=.10$) in predicting emotional oscillation for employees working in startups, meaning that independently of behaviour of the leader, (of the leader behaviour the difficulty to cope with risk and uncertainty is always positively associated with affect oscillation ($effect=.21$, $se=.08$, $p=.01$)).

Therefore, we can conclude that our second hypothesis was partially supported since empowering leadership moderated the relationship between entrepreneurial demands and affect oscillation at work, such that this relationship is enhanced in the presence of higher levels of empowering leadership, possible to observe in Figure1. Nevertheless, the nature of leadership (more or less empowering) does not change the positive relationship between the ability to cope with risk and uncertainty and affect oscillation at work for startup employees.

V- Discussion

The purpose of this study was to explore the effect of entrepreneurial demands on affect oscillation at work in the entrepreneurial context and examine the role of empowering leadership in this relationship. We followed the research needs proposed by several authors regarding entrepreneurial, leadership and emotional related studies. We were able to merge these three pertinent research areas and find interesting conclusions, observing that entrepreneurship provides indeed a specific context to study affect oscillation and empowering leadership.

Our results suggest that entrepreneurial jobs scale (Dijkhuizen, et al., 2014) measure entrepreneurial demands (time demands and responsibility) but also a personal trait: the ability to cope with risk and uncertainty. Moreover, our findings reveal that in the presence of elevated levels of time and responsibility demands, and when people have more difficulty to deal with risk and uncertainty; people's emotions at work tend to oscillate more for both founders and startup employees. However, our results evidenced that for startup employees, founders' leadership style make a difference.

Entrepreneurial demands such as feeling the need to be available 24 hours per day and accountable for company's success and failures were only related to affect oscillation when employees reported their leaders as having average or higher levels of empowering leadership. In what concerns the ability to cope with risk and uncertainty, our findings suggest that when employees consider it difficult to deal with the uncertainty and risk involved in their entrepreneurial work, they will always tend to have higher levels of affect oscillation, no matter if their leader is more or less empowering.

This strong consciousness of accountability and need to be available 24 hours per day are present as features of a self-employer that, in most cases, is experiencing the role and duty of founding a venture. Entrepreneurs' operating environment and these entrepreneurial roles as we had the opportunity to look at, are strongly associated with initiating and running business from scratch, processes that require significant risk taking, investment of a substantial amount of personal savings from material and immaterial resources - like time and effort. So, besides the widely encouraged positive effects of being an

entrepreneur - personal satisfaction and accomplishment (Spivack & McKelvie, 2017), possibility to shape their own destiny (Baron, 1998) and higher levels of life satisfaction, compared with regular employees (Bradley & Roberts 2004), we can verify that entrepreneurs face several negative effects from their professional choices.

Our findings suggest that emotional oscillation can be triggered by work events and entrepreneurial demands and this is mostly obvious when startup employees are empowered by their leaders; i.e, when their leaders provide opportunities to participate in decision making and encourage initiative. This result is aligned with the studies that suggest that empowering leadership can lead employees to experience higher levels of psychological ownership enhancing their sense of responsibility and accountability towards the organization, their sense of belongingness and their organizational identification (e.g. Kim & Beehr, 2017). We acknowledge, following AET (Weiss & Cropanzano, 1996) encouragement to look at in how the work is experienced and the way time is psychologically structured, that these emotional experiences are not only conditionate by individuals' affective traits (and the willing to control them) but also triggered by events and environment conditions (Beal et al., 2013).

We found that indeed entrepreneurial demands are positively related affect oscillation at work, answering "the call" for more research on the "challenging entrepreneurial tasks and the generation of positive and negative emotions" (Shepard, 2015, p. 497) and the interest in high levels of affect variability triggered by working environment and processes.

When individuals feel higher levels of empowering leadership, the affective impact of entrepreneurial demands is higher since the startup workers might feel higher psychological ownership and closer to venture events as their personal wins and failures, being more reactive to entrepreneurial demands and to events. This personal connection makes it more difficult for workers to detach from the "ongoing experience" that is entrepreneurship (Morris et al., 2012), and to manifest correspondent affect oscillation. Given the specificity of entrepreneurial context, rich in intense and changeable events, we could observe that indeed startup works experience dynamics between core affective states elicited by those, supporting our first hypothesis that entrepreneurial demands are positively related with affect oscillation at work.

We also found that empowering leadership has a moderator effect between entrepreneur's time demands and responsibility and affect oscillation at work, enhanced by high/average levels of empowering leadership and non-significant on low levels of empowering leadership, supporting the studies and our hypothesis on indirect detrimental effects of empowering leadership in employee's wellbeing (Humborstad & Kuvaas, 2013; Sharma & Kirkman, 2015).

Empowering leaders encourage employees to self-management (Tuckey et al., 2012) and assist them to build capacities to be more independent and confident (Ahearne et al., 2005; Kim et al., 2018), characteristics that are vital to perform well in a startup environment. As employees engage in the decision-making process, they will feel more responsible for their performance and be more attentive to their tasks, creating conditions for a greater psychological ownership (Kim & Beehr, 2017). Experiencing control, participation and influence, make individuals feel more responsible for the work and for the organization, creating a sense of belonging and feelings of organizational identification (Kim & Beehr, 2017). Being empowered and with assumed higher responsibilities imply higher levels of self-investment. "More complex jobs and nonroutine technologies allow individuals to exercise higher discretion, making it more likely that they will invest more of their own ideas, unique knowledge, and personal style. The most obvious and powerful means by which individuals invest themselves into objects is by creating them" (Pierce et al., 2001, p. 302).

Creation involves time and energy but also a part of the individual's identity is shared where, as a relatable example, "engineers may feel ownership toward the products they design and entrepreneurs toward the organizations they found" (p. 302). Feeling greater attachment and possession towards the startup or duties make employees embody company and founders' pains.

Recent studies have found that even when individuals do not have legal possession, anticipatory possession or pseudo-endowment, when they feel psychological ownership, it activates similar psychological effects to legal ownership (Shu & Peck, 2011). Motivated by the self-attributed need to work harder, workers create a biased appraisal of their own work, mixing companies' success and failures with their personal success and failures and as an extension of their own identity (Spivack et al., 2017). Highly identified employees are prone to work more and longer to achieve organizational

goals, but when they associate themselves with their organizations too strongly they are likely to develop a maladaptive attachment that becomes a harmful “addiction” (Avanzi, van Dick Fraccaroli, & Sarchielli, 2012).

Over-identification can have negative impacts in employee’s wellbeing because highly identified employees, by feeling the organization as their own turn the organization's goals to their personal goals. Excessive commitment to work can lead to a perceptual distortion of both external stimuli (demands) and internal resources (coping), leading employees to an extreme internal sense of “obligation” – workaholism (Avanzi et al., 2012). There are indeed studies that connect entrepreneurship with workaholism, when passion turns to addiction (e.g. Spivack & McKelvie, 2017) and the correspondent negative effects on individual’s wellbeing. Highly identified employees, seeing organizational events as relevant to their needs are more vulnerable to experience negative and positive emotions elicited by work. Therefore, we can assume that the most effective leadership style in the entrepreneur context is an interesting scope for future researches since a vast number of studies indicate that supportive relationships generally enhance physical and psychological well-being (Chay, 1993).

Curiously, there was no moderation effect of empowering leadership between the trait variable risk and uncertainty and affect oscillation at work. Our finding indicates that startup employees’ difficulty to cope with the risk and uncertainty present in their jobs is always associated with higher affect oscillation, regardless of leader’s empowering behaviours. Therefore, this ability (or inability) overlaps the possible effect of empowering leadership. Entrepreneurship is risky and dealing with that risk is part of the nature of working in a startup. So, being a risk-taker is a desirable psychological capital trait for being an entrepreneur (Shepard, 2018) or for working in an entrepreneurial context, but obviously that people differ in the way that they cope with risk and uncertainty, especially considering their jobs. Podoymitsyna, Van der Bij, and Song (2012) found that higher entrepreneurial risk perception leads to a higher level of conflicting emotions, experiencing simultaneous positive and negative affect and by that, higher levels of affect oscillation.

Limitations and Future Research

Our study is not free of limitations. First, it was cross-sectional in nature. Therefore, we cannot advocate causality of the reported relations. However, since we tested a moderation model and interaction effects can even be depleted by the existence of a common method variance (Siemsen, Roth, & Oliveira, 2010) we can argue that the possible common method variance due the use of same source and same method does not bias our interaction results.

However, future studies should consider the use of multiple sources of data, such as co-workers' assessment of empowering leadership instead of workers self-reported.

Another limitation may be the nature of our sample. Our sample was considerably diverse (with 103 employees and 77 founders from different sectors and from north to south of the country) but it would be helpful if we could have a broader sample of different tech-sectors.

Regarding leadership interactions, we have exclusively the employee's evaluation regarding their leaders and we are assuming that all founders and co-founders have managerial roles, what might not be totally true.

Despite these limitations, we believe that our study can open several doors and especially raise the awareness on the dynamics that happen in these new organizational structures that are modelling future of work. Especially in Lisbon, we are living the "boom" of startups growth with enterprises popping every day in several sectors. So, this progress should be followed by sustainable practices, regarding business development but especially, work force and individual's wellbeing.

Our findings support that a greater understanding of entrepreneurial demands and how to cope with them is crucial, since entrepreneurs and employees working in those entrepreneurial contexts are affected by those in their daily lives.

It would be interesting to analyse in future research the consequences of affect oscillation for startup employees and entrepreneurs, namely if affect oscillations has an influence in how entrepreneurs see and cope with their business challenges compared with more stabilized entrepreneurs that are experiencing lower levels of affect oscillation.

Since a vast group of authors highlight the importance of having alternative ways to measure affect besides mean evaluations (Shapiro, 2015; Bea & Ghandour, 2011),

more studies should be developed in this scope, in a way to examine the core affect trajectory, especially in work environments. It would be interesting to discover the direction and meaning of these trajectories, since we did not have the chance to do it in our study, using the affect anchors at work (Warr et al,2014).

More, research should tackle the effect of empowering leadership in both intervenient: followers and leaders. Being a leader is a challenging experience itself, especially in the entrepreneurial context. So, besides the effect of empowering leadership behaviours on subordinates, how empowering leaders cope with their extra and motivational role and if this has influence in their wellbeing and emotional oscillation will be an interesting scope.

Finally, it would be relevant to analyse if specific stages of the start-up development can also require different leadership styles to be applied; more directive or more empowering according the moments and employee's needs.

Practical Implications

Leadership is a pillar for any organization and especially in a “weak” context – with fragile structures and strong unpredictability such as startups, where leadership behaviours can have a greater impact compared with established companies (Ensley et al., 2006). Since in an early stage moment founders are the lighthouses that guide the way through the dark and shapeless sea of business creation, it is critical that they possess sturdy leadership skills, suitable for that specific context and enable the followers to feel supported, managed and motivated. When employee might be feeling loss triggered by entrepreneurial job demands, leadership should act as resource to mitigate the process and delegate and empower in a sustainable and healthy manner.

For an effective leadership performance in this specific context, it is important that managers are aware and comfortable themselves with the entrepreneurial conditions (risk, high uncertainty and ambiguous processes) to feel motivated and able to guide the employees' through success; otherwise they will be the first ones to dictate failure. They should feel able to perform several roles in the beginning (Buttner, 1992) but also to share and delegate in a sustainable and weighted way, to empower they followers without overwhelm them.

Dealing with new ventures also means dealing with a varied panoply of feelings, emotions and moods triggered by events (Morris et al., 2012), that can go quickly from the excitement of having a new associate abroad to the frustration of losing a prestigious investor. From experienced CEO's to temporary interns, everyone experiences disappointment and success and, as we could observe, even more when startup leaders have empowering attitudes.

Raising awareness to the importance of emotions and the fact that they can easily fluctuate are important topics to be approached in entrepreneurial courses in university and directly with the entrepreneurs "on the job", for example in the vaunted incubators programmes.

Kuratko (2005) observed that entrepreneurial education has been growing vastly in the last years and it has been explored in a different way from typical business education: instead of courses focused on how to manage a business, entrepreneurial education explores the nature of the ambiguous business entry. This author defends that a trend among universities is to develop or expand entrepreneurship programs and design unique and challenging curricula specifically for entrepreneurship students. And of the topics he believes that are important to be better developed, one is risk- security dimensions, to enable students to be well prepared to expect "the unexpected" and feel comfortable being out of the "comfort zone."

How to build a business model, how to target your potential consumers and who is your client persona are indeed important topics for a venture development, but sustainable leadership and how to manage your emotions in a rapid changing work environment, rich in exciting and frustrating phases, is also crucial. Especially when investing your time, energy, funds and your upcoming future on it. These topics can be easily integrated in accelerator programmes that are developed in incubator and coworking spaces, developed specifically to support these kinds of ventures and designed by experienced business founders and former entrepreneurs.

Leaders should be able to manage their own emotions to better perform managerial roles and achieve higher levels of wellbeing but also to manage other's emotions, to transmit trust and control in such uncertain and volatile work environment. We had the chance to observe how relevant entrepreneurial demands are related with affect oscillation.

Several strategies could help startup workers to better deal with demands and stress that often they don't recognize until their health interferes with their ability to work. A

greater monitoring should be done together with business founders, not only regarding emotional regulation but also on coping strategies to deal with stress, through coaching or health practises, such as meditation and physical exercise to release the tensions (Buttner, 1992). Coaching support could be done for example together with more experienced entrepreneurs that can share their experiences and how they overcame challenges as inspirational role models. Hülshager Alberts, Feinholdt and Lang (2013) suggest that for employees working in emotionally demanding jobs, mindfulness can be a helpful way to replace resources and assist emotional regulations, promoting job satisfaction and helping to prevent burnout in terms of emotional exhaustion.

Understanding the stresses generated by the entrepreneurial lifestyle and assisting entrepreneurs in developing more effective coping strategies would have economical and individuals benefits for the current and future organizations (Buttner, 1992).

Our findings show that affect does indeed play a role in the entrepreneurial process and influence in the way that individuals' growth and experience new businesses. Given the volatile, uncertain, and rapidly changing environments in which entrepreneurs and new ventures operate, affective change as well plays a key role for wellbeing and business sustainability.

VI- Conclusion

Although research in affect dynamics has sometimes explored differences between affect valence, empirical comparisons between various levels of affect activation have so far been rare (Russell, 2003). With the creation of a new construct - affect oscillation at work - we aimed to fill a gap in the literature. Summarizing, this study presents an important step for the study of affect dynamics in the entrepreneurial context and the role of empowering leadership in augmenting the detrimental impact of entrepreneurial demand on affect oscillation. By stimulating employees' involvement in decision-making, leaders may amplify the effect of experiential events on startup employees affect at work, turning their pains into employees' pains. We found that indeed the efforts to mitigate hierarchies in startup context might have influence in employees. Through empowering employees, leaders can receive more support and feel more cooperation from their employees but also employees feel more responsibility and

pressure, diminishing the differences between personal involvement of founders and joiners. We assume that this can be instigated by leadership behaviours, where average and higher levels of empowering leadership, instead of having a buffering effect—on affect oscillation actually increases it.

VII- Bibliography

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