JOB PERFORMANCE PROGNOSIS: EVALUATING WORK ENGAGEMENT, WORKAHOLISM, AND SELF-EFFICACY

a Nadia A. Abdelmegeed Abdelwahed, b Mohammed A. Al Doghan, c Mitho Khan Bhatti d Bahadur Ali Soomro

ABSTRACT

Purpose: The present study attempts to investigate work engagement, workaholism and self-efficacy towards entrepreneurial performance among the entrepreneurs of Saudi Arabia. Theoretical framework: The study integrates work engagement, workaholism, and self-efficacy in predicting job performance. Besides, the relationship between self-efficacy and work engagement in the presence of workaholism and job performance has yet to be thoroughly explored.

Design/Methodology/ Approach: The study is quantitatively based on cross-sectional data. A survey questionnaire is applied to get a response from the entrepreneurs through snowball sampling. In total, 450 survey questionnaires were distributed. In return, we received 280 with a response rate of 62%.

Findings: By employing the structural equation model (SEM), the study found a significant effect of work engagement on innovative behaviour, business growth and subjective business success. Further, self-efficacy significantly predicts innovative behaviour, business growth, subjective business success and work engagement. On the other hand, workaholism has a significant negative predictor of innovative behaviour, business growth, and subjective business success.

Research, practical and social implications: The empirical proof of the study would deepen the new insights for the conceptualization of entrepreneurship performance in a developing context. The study may fill the gaps at a global level for understanding the factors of entrepreneurship performance among entrepreneurs.

Originality/ value: The definite link between self-efficacy and work engagement may offer new insight into the entrepreneurship and management literature. The outcomes of the study offer a shred of empirical evidence for entrepreneurial performance through work engagement, workaholism and self-efficacy.

Keywords: entrepreneurial performance, work engagement, workaholism, self-efficacy, innovative behaviour, business growth, business success.

---

a PhD in Human Resource Management (HRM), Department of Business Management, College of Business Administration, King Faisal University, Al Hofuf, AlAhsa, Saudi Arabia, E-mail: nabdelwahed@kfup.edu.sa, Orcid: https://orcid.org/0000-0002-6778-321X
b PhD in Human Resource Management (HRM), Department of Business Administration, College of Business Management, King Faisal University, Al Hofuf, AlAhsa, Saudi Arabia, E-mail: mdoghan@kfup.edu.sa, Orcid: https://orcid.org/0000-0001-6418-269X
c PhD in Public Administration, Institute of Management Sciences, University of Balochistan, Quetta, Pakistan, E-mail: mk_bhatti@hotmail.com, Orcid: https://orcid.org/0000-0001-7261-4966
d PhD in Economics/ Entrepreneurship, Department of Economics, Abdul Haq Campus, Federal Urdu University of Arts, Science and Technology, Karachi, Pakistan, E-mail: bahadur.ali@scholars.usindh.edu.pk, Orcid: https://orcid.org/0000-0001-7120-5423
PROGNÓSTICO DO DESEMPENHO DO TRABALHO: AVALIAÇÃO DO ENVELHIMENTO NO TRABALHO, DO WORKAHOLISM E DA AUTOEFICÁCIA

RESUMO

Objetivo: O presente estudo tenta investigar o engajamento no trabalho, o workaholism e a autoeficácia para o desempenho empresarial entre os empreendedores da Arábia Saudita. Estrutura teórica: O estudo integra engajamento no trabalho, aolismo e autoeficácia na previsão do desempenho do trabalho. Além disso, a relação entre autoeficácia e engajamento no trabalho na presença de workaholism e desempenho do trabalho ainda não foi completamente explorada.

Projeto/Metodologia/Abordagem: O estudo é quantitativamente baseado em dados transversais. Um questionário de pesquisa é aplicado para obter uma resposta dos empresários através de amostragem de bola de neve. No total, foram distribuídos 450 questionários de pesquisa. Em troca, recebemos 280, com uma taxa de resposta de 62%.

Constatações: Empregando o modelo de equação estrutural (MEE), o estudo encontrou um efeito significativo do engajamento no trabalho sobre o comportamento inovador, o crescimento de negócios e o sucesso subjetivo. Além disso, a autoeficácia prevê significativamente o comportamento inovador, o crescimento da empresa, o sucesso subjetivo da empresa e o envolvimento no trabalho. Por outro lado, o workaholism tem um preditor negativo significativo de comportamento inovador, crescimento de negócios e sucesso comercial subjetivo.

Investigação, implicações práticas e sociais: A prova empírica do estudo aprofundaria as novas perspectivas para a conceptualização do desempenho do empreendedorismo num contexto em desenvolvimento. O estudo pode preencher as lacunas em nível global para a compreensão dos fatores de desempenho do empreendedorismo entre os empresários.

Originalidade / valor: A ligação definitiva entre a autoeficácia e o envolvimento no trabalho pode oferecer uma nova visão sobre a literatura de empreendedorismo e gestão. Os resultados do estudo oferecem uma pitada de evidências empíricas para o desempenho empresarial por meio do engajamento no trabalho, do workaholism e da autoeficácia.

Palavras-chave: desempenho empresarial, engajamento no trabalho, workaholism, autoeficácia, comportamento inovador, crescimento empresarial, sucesso empresarial.

1 INTRODUCTION

In today's world, the ability to predict the performance of entrepreneurs in their work is of utmost importance for societal development (Gorgievski et al., 2013; Soomro and Shah, 2020; Soomro et al., 2021; Bhatti et al., 2022). It also significantly addresses economic downturns by fostering employment and innovation (Kelley et al., 2010; Soomro et al., 2021). Scholars in the field of entrepreneurship emphasize the importance...
of motivational concepts, particularly the "passionate, selfish love of work," as crucial for understanding entrepreneurial behaviour (Shane et al., 2003; Adee et al., 2023). Research has highlighted a positive and significant correlation between passion for work and entrepreneurial performance (Baum and Locke, 2004; Abdelwahed et al., 2023). According to Gorgievski et al. (2010), job performance can be predicted through work engagement, with self-employed individuals playing a pivotal role in achieving better performance (Gorgievski et al., 2013). Numerous studies, including Halbesleben and Wheeler (2008), Bakker and Xanthopoulou (2009), Bakker and Bal (2010), Jindal et al. (2022), and Al Badi et al. (2023), have underscored the significance of work engagement as a pivotal contributor to both in-role and extra-role performance.

Gorgievski et al. (2010) have pointed out that work engagement and workaholism are two closely associated motivational concepts within the context of "passion for work." In their study, Gorgievski et al. (2013) found that work engagement significantly and positively impacts innovative behaviour, business growth, and subjective business success more so than workaholism. Moreover, at the organizational level, self-efficacy is a crucial predictor of work engagement (Tim et al., 2011). Self-efficacy leads to engagement, creating a positive feedback loop fueled by self-efficacy that ultimately strengthens efficacy beliefs (Llorens et al., 2007). Employees who are highly engaged in their work tend to be highly self-efficacious, possessing a strong confidence in their ability to handle challenging situations.

Consequently, self-efficacy is prominent in enhancing entrepreneurial performance by instilling the attributes of capability, confidence, and spirit among individuals (Llorens et al., 2007; Tim et al., 2011). Despite the existing literature focusing on self-efficacy in isolation or combination with work engagement and workaholism (Gorgievski et al., 2013; Kim and Koo, 2017; Ismail et al., 2019; Abdelwahed et al., 2023; Soomro et al., 2023; Rubianto and Kembaren, 2023), particularly in the context of Saudi Arabia, the interplay of self-efficacy with job performance in conjunction with work engagement and workaholism has not been extensively explored.

With this gap in mind, the present study aims to investigate the relationships between work engagement, workaholism, self-efficacy, and entrepreneurial performance among entrepreneurs in Saudi Arabia. The findings of this survey are expected to enhance our understanding of the connections between work engagement, workaholism, and self-efficacy, providing valuable insights into effective pathways to performance. This study
also proposes that hard-working entrepreneurs, driven by work engagement, workaholism, and self-efficacy, yield distinct performance outcomes. Empirical evidence of the interplay between self-efficacy, work engagement, and job performance may contribute to developing new conceptualizations and further validating these associations, particularly in a developing country context. Ultimately, the findings of this study in the Saudi Arabian context are expected to bridge gaps and enrich the literature on management and entrepreneurship through the application of SEM techniques.

2 LITERATURE REVIEW AND CONCEPTUALIZATION

In the realm of passion research, it’s been established that work engagement and workaholism are largely independent constructs with distinct implications (Gorgievski et al., 2013; Yulita et al., 2022; Cook and Gilin, 2023). Work engagement, in particular, appears to exhibit more daily fluctuations and is more readily influenced by environmental factors, such as the availability of job resources, compared to workaholism. Besides, work engagement has positively affected various aspects of life, including social relationships at work, overall life satisfaction, and psychological resources like general self-efficacy (Taris et al., 2009).

Conversely, workaholism has been positively linked to personality traits with less favourable connotations, such as dominance, stubbornness, rigidity, perfectionism, and specific behavioural patterns. It is also associated with lower levels of life satisfaction, physical and mental health issues, and elevated job strain (Taris et al., 2009). Bakker et al. (2009) have suggested that workaholism is associated with reduced happiness, lower quality of life, and impaired social functioning. Reina-Tamayo et al. (2018) also found a moderate positive correlation between job resources and work engagement through multivariate analysis. Grobelna (2019) conducted an empirical study indicating that task significance is the most influential driver of work engagement among hotel employees, and there is a direct association between polychronicity and hotel employees’ job performance.

Personal traits, particularly self-efficacy, have been underscored as significant predictors of work engagement by Tim et al. (2011). Chughtai and Buckley (2011) suggest that learning goal orientation may partially mediate work engagement, in-role job performance, and innovative work behaviour. Karadas and Karatepe (2019) propose that psychological capital mediates the impact of high-performance work systems on work
engagement. Guan and Frenkel (2018) find that employees who engage in job crafting are more likely to be engaged in their work, and both job crafting and work engagement mediate the relationship between HRM practices and performance.

Leader-member exchange (LMX) is significantly associated with employee service innovative behaviour through work engagement. The findings suggest that job autonomy as a moderator reinforces the relationship between LMX and employee service innovative behavior, mediated by work engagement (Garg and Dhar, 2017). Rasool et al. (2020) recommend that workplace harassment negatively impacts work performance, tarnishing one's image and fostering toxicity among peers. Occupational stress is also stigmatized among employees facing workplace stress. Follower work engagement and transformational leadership mediate the association between follower service performance and service leadership, with work engagement playing an indirect role (Zheng et al., 2020).

Agarwal (2014) adds to this by suggesting that psychological contract fulfilment, interactional justice, and procedural justice are significantly associated with work engagement. Trust plays a mediating role in affecting employees' innovative work behaviour. Basit (2019) proposes that task performance and affective commitment can be predicted by respectful engagement, and job engagement mediates the significant impacts of respectful engagement, task performance, and affective commitment. Chaurasia and Shukla (2013) reveal that a robust employee-leader relationship positively influences employee engagement and work role performance. Positive emotions expressed by supervisors positively affect employees' work engagement, mediated by employees' positive emotions and innovative behaviour. Wu and Wu (2019) demonstrate that negative emotions among employees do not significantly mediate the effect of supervisors' negative emotions on innovative behaviour. Recently, Shkoler and Kimura (2020) examined how workers' status moderates the impact of intrinsic and extrinsic motivation.

Despite these valuable insights, the literature still needs to address several gaps. Firstly, there is a lack of empirical studies that collectively consider three factors: work engagement, workaholism, and self-efficacy, in predicting job performance (Gorgievski et al., 2013; Kim and Koo, 2017; Ismail et al., 2019; Lee et al., 2022). Secondly, the relationship between self-efficacy and work engagement in the presence of workaholism and job performance has yet to be thoroughly explored (Deci and Ryan, 2000). Lastly,
there is a need for more research focusing on Saudi Arabian entrepreneurs with sufficiently large sample sizes (above 200) (Gorgievski et al., 2013; Ismail et al., 2019; Jindal et al., 2022; Abdelwahed et al., 2022; Cook and Gilin, 2023).

Hence, considering these gaps and existing relationships, we have developed the following model (Figure 1) for testing among Saudi Arabian entrepreneurs.

Figure 1. Conceptual model of the study

Work engagement is a robust predictor of job performance, supported by extensive research (Gorgievski et al., 2010a; Gorgievski et al., 2013). The self-employed and engaged employees consistently outperform their less-engaged counterparts (Gorgievski et al., 2013). Empirical investigations by Halbesleben and Wheeler (2008), Bakker and Xanthopoulou (2009), and Bakker and Bal (2010) have demonstrated the significant role of work engagement in both in-role and extra-role performance. Furthermore, an increase in psychological capital (PsyCap) forecasts subsequent increases in work engagement, predicting improved job performance (Alessandri et al., 2018). Notably, work engagement serves as a mediator in the relationship between PsyCap and performance. Both personal resources and job resources have been shown to influence performance outcomes through their impact on work engagement, as suggested by Lazauskaite-Zabielske et al. (2018). Ismail et al. (2019) propose that creativity fully mediates the association between engagement and performance.
In the literature, factors such as innovative behaviour, business growth and subjective business success have been identified as significant contributors to entrepreneurial performance (Gorgievski et al., 2011). Innovative behaviour involves discovering novel ideas to achieve entrepreneurial objectives, such as financial success and growth. Business growth is paramount to society as it generates jobs and wealth. Lastly, subjective business success reflects the degree to which entrepreneurs are satisfied with their venture's financial and overall performance, influencing their decision-making.

Wu and Wu (2019) strongly recommend that work engagement mediates the positive impact of employees' positive emotions on their innovative behaviour. Kim and Koo (2017) found a significant relationship between LMX and job engagement and innovative behaviour. Job engagement significantly influences organizational engagement, in turn affecting innovative behaviour.

Moreover, innovative behaviour significantly influences job performance. According to Agarwal (2014), perceived organizational support and work engagement are associated considerably with innovative employee behaviour. Work engagement is a belief that empowers individuals to contribute to success and business growth in a meaningful way (MacLeod and Clarke, 2010). Work engagement is found to be a partial mediator between subjective occupational success and transformational leadership (Vincent-Höper et al., 2012). Scholars such as Lu et al. (2022), Aboramadan et al. (2022), Jahangir et al. (2023), Zaman and Ansari (2023), and Juyumaya and Torres (2023) have confirmed the positive and significant connection between work engagement and innovative behaviour, business growth, and subjective business success in various contexts. Furthermore, empirical evidence from Gorgievski et al. (2013) reveals a significant positive effect of work engagement on job performance based on a sample of 180 individuals. However, considering larger sample sizes and contextual variations, we anticipate the following hypotheses:

**H1.** Work engagement has a positive and significant effect on innovative behaviour.

**H2.** Work engagement has a positive and significant effect on business growth.

**H3.** Work engagement has a positive and significant effect on subjective business success.

Research on workaholism reveals its association with negative affective states, as demonstrated by studies such as Van Wijhe et al. (2011). Trait negative affect, as
indicated by Clark et al. (2010), can lead to adverse performance outcomes. This negative emotional state counteracts the potentially positive impact of workaholism on performance through mechanisms like long working hours. In contrast to positive emotional situations, research by Fredrickson (2001) and Fredrickson and Branigan (2005) suggests that negative emotional states are linked to narrowed thought-action selection. This can have broader consequences on entrepreneurial performance, potentially diminishing aspects such as networking, resource acquisition, and innovativeness. Entrepreneurs grappling with significant adverse effects may also struggle to manage stress effectively.

Several longitudinal studies, including those by Gorgievski et al. (2010), have found a connection between poor mental health, unhappiness, feelings of strain, and a discouraged mood, all of which predict subpar economic business performance over time. Furthermore, Gorgievski et al. (2013) identified a negative and significant impact of workaholism on innovative behaviour, business growth and subjective business success.

As a result, the existing literature presents mixed results. For instance, Aksoy and Yalçınsoy (2018) and Gorgievski et al. (2013) have reported negative relationships between workaholism, innovative behaviour, business growth and subjective business success. However, in the study by Spagnoli et al. (2020), the mediation model was not consistently significant, with the indirect effect showing variations from negative to non-significant or even positive, contingent on moderators. Given these conflicting findings, we anticipate:

H4. Workaholism has a negative and significant effect on innovative behaviour.
H5. Workaholism has a negative and significant effect on business growth.
H6. Workaholism has a negative and significant effect on subjective business success.

Self-efficacy refers to an individual's belief in their ability to carry out various actions necessary to achieve organizational goals or personal accomplishments, as articulated by Bandura (1997). Scholars like Stajkovic and Luthans (1998) and Randhawa (2004) assert a positive association between self-efficacy and performance, emphasizing the significance of measuring an entrepreneur's level of self-efficacy. Within the framework of social cognitive theory (social learning theory), self-efficacy pertains to an individual's belief in their ability to successfully execute a given task. Kumar and Uzkurt (2010) find a substantial and positive relationship between self-efficacy and
innovative behaviour, indicating that higher self-efficacy levels among employees are linked to increased innovative behaviour (Hsiao et al., 2011).

In Bandura’s perspective (1997), mastery experiences play a crucial role in shaping self-efficacy; prior successes enhance one’s self-efficacy. Similarly, creative self-efficacy is a significant predictor of engagement in innovative activities (Slåtten, 2014). Researchers in various domains, including Shaver et al. (2001), and Carter et al. (2003) suggest that personal efficacy plays a meaningful role in shaping the attributions of nascent entrepreneurs as they embark on new ventures. Empirical evidence from Kickul and D’Intino (2005) underscores that self-efficacy and perceived skills and abilities to manage a new venture are significant determinants of entrepreneurial performance when starting a new venture.

Self-efficacy’s influence extends across diverse domains, including education, business, athletics, and psychology, where it serves as a highly motivational factor, enhancing performance and improving learning strategies and tactics (Lyons and Bandura, 2019). Miao et al.’s (2017) meta-analysis identifies a significant correlation between entrepreneurial self-efficacy and firm performance. In addition, scholars like Soomro et al. (2020), Abdelwahed et al. (2022), and Soomro et al. (2023) have demonstrated the positive predictive power of entrepreneurial self-efficacy on commitment, performance, and entrepreneurial success.

Consequently, the literature has extensively explored the relationship of self-efficacy with innovative behaviour, business growth and subjective business success individually rather than considering them collectively. Furthermore, these relationships have not been empirically confirmed in specific contextual settings. Therefore, we propose:

H7. Self-efficacy has a positive and significant effect on innovative behaviour.
H8. Self-efficacy has a positive and significant effect on business growth.
H9. Self-efficacy has a positive and significant effect on subjective business success.

In the organizational context, self-efficacy is a pivotal factor influencing individuals' cognitive, behavioural, and social development, rooted in their belief in their capabilities. Tim et al. (2011) elucidate self-efficacy as a personal trait that is critical to an individual’s motivational potential, making it an essential precursor to work engagement. Seminal research by Llorens et al. (2007) underscores a significant positive
relationship between work engagement and self-efficacy. Notably, self-efficacy doesn't merely lead to engagement; it also follows it, creating a virtuous cycle where self-efficacy fuels engagement, subsequently enhancing efficacy beliefs (Llorens et al., 2007). Serving as a personal resource, self-efficacy plays a crucial role as both a driver of work engagement and an antecedent to it. Personal resources, including optimism and self-efficacy, have been found to predict work engagement (Xanthopoulou et al., 2007). Moreover, individuals with high levels of work engagement tend to exhibit high self-efficacy; they strongly believe in their ability to navigate challenging circumstances. Xanthopoulou et al. (2008) suggest that self-efficacy and work engagement differ as personal resources beyond job resources and engagement, potentially due to variations in specific performance measurements and the nature of tasks.

Interestingly, research by Carter et al. (2016), Albrecht and Marty (2020), and Rubianto and Kembaren (2023) implies that employee engagement may serve as a more effective predictor of performance compared to self-efficacy. However, despite the positive relationship between self-efficacy and work engagement, empirical evidence within the Saudi context still needs to be present, warranting significant attention. Thus, we propose:

\[ H10. \text{Self-efficacy has a positive and significant effect on work engagement.} \]

3 METHODS

3.1 PARTICIPANTS AND SAMPLE SIZE

The study participants comprised entrepreneurs from Saudi Arabia, most of whom were enrolled in various public sector universities or distance education programs. These entrepreneurs were classified as self-employed business owners based on the definition provided by Rauch and Frese (2000), with a substantial majority (84%) having at least one employee in their enterprises.

To collect data, we employed a survey questionnaire that had been previously validated and utilized in similar research. This instrument was initially developed and utilized by Gorgievski et al. (2013) and was implemented using a "snowballing" data collection technique. In social science research, mainly when there is no readily available and comprehensive list of the entire population, non-probability sampling methods like snowball sampling are often employed to identify suitable units for inclusion in the sample (Sharma, 2017). Given the absence of a comprehensive population list, snowball
sampling emerged as the most practical and viable approach for accessing the necessary sample (Sharma, 2017).

A total of 450 survey questionnaires were distributed among the participants. In response, we received 280 completed questionnaires, resulting in a response rate of 62%. This response rate is deemed sufficient, ensuring that the study does not suffer from a lack of response to the questionnaire, which could introduce nonresponse bias—a significant threat to the survey's validity and reliability (Fincham, 2008).

3.2 INSTRUMENT AND DATA COLLECTION MODES

To gather responses from the study participants, we utilized a survey questionnaire conducted in English. This questionnaire drew from well-established studies by Janssen (2003), Stephan and Richter (2006), Schaufeli et al. (2006), and Li’bano et al. (2010). Before administering the full-scale questionnaire, we assessed its reliability and validity using a sample of 25 respondents.

Reliability was evaluated by assessing the internal consistency among the scale items. At the same time, factor loadings were examined to understand the relationship between individual items and their respective constructs, as Hair et al. (2010) recommended. Moreover, the questionnaire's validity was confirmed through the input of two field experts, who were university professors. The results demonstrated that the questionnaire exhibited excellent reliability, with a Cronbach's alpha reliability coefficient (α) exceeding the 0.70 threshold, as suggested by Hair et al. (2010).

The design and language of the questionnaire were carefully reviewed and modified with minimal changes to ensure clarity and effectiveness. The survey was conducted through personal visits and emails to potential respondents after providing comprehensive information about the study's aims and objectives. Before distributing the questionnaire, every participant was assured that their participation was voluntary and their informed consent was obtained.

Ethical considerations in survey research are of utmost importance, and we prioritized the well-being of the respondents by guaranteeing the confidentiality and privacy of their responses and emphasizing the voluntary nature of their participation in the study.
3.3 MEASURES

All the measurement scales were adopted from the prevailing literature. We applied a five-point Likert Scale where 1= strongly agree; 2=agree; 3= neutral; 4= disagree and 5= strongly disagree.

Work engagement. This factor was evaluated on nine-item adopted from Utrecht Work Engagement Scale (UWES) of Schaufeli et al. (2006b) and as used by Gorgievski et al. (2013). The sample items of the scale are “At my job I feel strong and vigorous” and “I am immersed in my work”.

Workaholism. This predictor was assessed on ten-item of Dutch Workaholism Scale (DUWAS) of Lı´bano et al. (2010) as used by Gorgievski et al. (2013). The sample items of the scale are “I overly commit myself by biting off more than I can chew”, and “I feel obliged to work hard, even when it’s not enjoyable.”

Self-efficacy. This factor was measured on seventeen items developed by Sherer et al. (1982). The sample items of the scale are “When I make plans, I am certain I can make them work.” and “One of my problems is that I cannot get down to work when I should”.

Innovative behaviour. Innovative behaviour at work was evaluated by applying six-item scale of individual innovative behaviour of Janssen (2003). The sample item of the scale are “I invent new solutions for problems at work” and “I transform innovative ideas into useful applications.”

Business growth. This construct was measured on three items mentioning to business growth during the past 12 months in number of employees, profit and business turnover as suggested by Stephan and Richter (2006). The same scale has been applied by Gorgievski et al. (2013) to investigate the business growth. The sample items of the scale are “how did the number of employees change over the past twelve months?”

Subjective business success. We applied five items to measure the business performance developed Stephan and Richter (2006) and suggested by Gorgievski et al. (2013). The sample items of the scale are “How satisfied are you with . . .?” Monitored by the different aspects of financial business performance including “your personal income”, “your business profit” and “turnover rates of your business”.

4 DATA ANALYSIS AND RESULTS

We utilized SPSS and AMOS version 26.0 software to derive meaningful results from the data. A meticulous data cleaning and screening process was conducted before
hypothesis testing. This involved examining missing values through a comprehensive missing value analysis. Once the missing values were appropriately addressed, the dataset was further scrutinized for outliers to ensure the accuracy and reliability of the report. Among the 280 samples initially collected, we identified two outliers that did not meet the recommended threshold for Mahalanobis distance (> 3.0), as advised by Hair et al. (2010). Consequently, these outlier cases were excluded from the final analysis, leaving us with a dataset of 278 valuable responses for further assessment.

4.1 DEMOGRAPHY

The demographic information of the respondents highlights the majority of males 64.75% (n=180) as compared to females (35.25% or n=98). With regard to age, it is recorded as 54.68% (n=152) in between 21-30 years. 31.65% (n=88) were between 31-40 years of age. Only, 0.72 % (n=02) entrepreneurs were above 51 and above years of age (Table 1). With regard to industry affiliation, a majority of the respondents was from software and computer services (34.53% or n=96). From the financial services sector, 29.50% or 82 participants have contributed to the study. However, the transportation and communication sector’s participants (8.063% or n=24) have been filled with the questionnaire (Table 1). Concerning work experience, a good number of the participants were rich experienced (more than 1-15 years), and only 46.04% participants had less than ten years of experience (Table 1).

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>180</td>
<td>64.75</td>
</tr>
<tr>
<td>Female</td>
<td>98</td>
<td>35.25</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>100.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 21 years</td>
<td>08</td>
<td>02.88</td>
</tr>
<tr>
<td>21-30 years</td>
<td>152</td>
<td>54.68</td>
</tr>
<tr>
<td>31-40 years</td>
<td>88</td>
<td>31.65</td>
</tr>
<tr>
<td>41-50 years</td>
<td>28</td>
<td>10.07</td>
</tr>
<tr>
<td>51 and above years</td>
<td>02</td>
<td>00.72</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>100.0</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial services</td>
<td>82</td>
<td>29.50</td>
</tr>
<tr>
<td>Software and computer services</td>
<td>96</td>
<td>34.53</td>
</tr>
<tr>
<td>Consumer services</td>
<td>76</td>
<td>27.34</td>
</tr>
<tr>
<td>Transportation and communication</td>
<td>24</td>
<td>08.63</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>100.0</td>
</tr>
<tr>
<td>Work experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 10 years</td>
<td>128</td>
<td>46.04</td>
</tr>
<tr>
<td>1-15 years</td>
<td>106</td>
<td>38.13</td>
</tr>
<tr>
<td>16-20 years</td>
<td>26</td>
<td>9.35</td>
</tr>
<tr>
<td>21 and above years</td>
<td>18</td>
<td>6.48</td>
</tr>
</tbody>
</table>
4.2 MEASUREMENT MODEL

To ensure the reliability of individual items, we scrutinized the factor loadings, all of which exceeded the recommended threshold of 0.70 (Hair et al., 2017). However, a few items (WET=5, 8; WM=10; SE=9, 10, 13; SBS=2) fell short of the suggested values and were consequently excluded from the analysis (Hair et al., 2017).

Furthermore, we assessed the composite reliability (CR), which ranged between 0.867 and 0.903 (as shown in Table 2). These values comfortably exceeded the suggested threshold of 0.70 (Kline, 2010). Likewise, to ascertain the identity of the constructs, we calculated the average variance extracted (AVE), which ranged from 0.786 to 0.810 for all constructs—well above the recommended threshold of 0.50 (Hair et al., 2010).

Finally, the reliability of the entire questionnaire was assessed using Cronbach’s alpha (α), yielding a satisfactory value of 0.70, surpassing the accepted threshold of 0.70 (Nunnally and Bernstein, 1994), as detailed in Table 2.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item code</th>
<th>Factor loadings</th>
<th>CR</th>
<th>AVE</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work engagement</td>
<td>wet9</td>
<td>0.895</td>
<td>0.894</td>
<td>0.832</td>
<td>0.843</td>
</tr>
<tr>
<td>[WET]</td>
<td>wet1</td>
<td>0.872</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wet2</td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wet3</td>
<td>0.861</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wet7</td>
<td>0.843</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wet6</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wet4</td>
<td>0.800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workaholism</td>
<td>wm1</td>
<td>0.870</td>
<td>0.883</td>
<td>0.832</td>
<td>0.854</td>
</tr>
<tr>
<td>[WM]</td>
<td>wm4</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm5</td>
<td>0.808</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm7</td>
<td>0.798</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm8</td>
<td>0.783</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm9</td>
<td>0.765</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm2</td>
<td>0.756</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>wm3</td>
<td>0.731</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>se14</td>
<td>0.902</td>
<td>0.876</td>
<td>0.865</td>
<td>0.887</td>
</tr>
<tr>
<td>[SE]</td>
<td>se17</td>
<td>0.897</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se5</td>
<td>0.882</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se2</td>
<td>0.876</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se1</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se11</td>
<td>0.843</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se12</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se15</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se7</td>
<td>0.798</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se6</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>se8</td>
<td>0.754</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated by the authors from collected data
Innovative behaviour

<table>
<thead>
<tr>
<th></th>
<th>se4</th>
<th>0.742</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>se16</td>
<td>0.706</td>
</tr>
</tbody>
</table>

Work Engagement

<table>
<thead>
<tr>
<th></th>
<th>ib1</th>
<th>0.881</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ib3</td>
<td>0.865</td>
</tr>
<tr>
<td></td>
<td>ib4</td>
<td>0.842</td>
</tr>
<tr>
<td></td>
<td>ib2</td>
<td>0.812</td>
</tr>
<tr>
<td></td>
<td>ib5</td>
<td>0.807</td>
</tr>
<tr>
<td></td>
<td>ib6</td>
<td>0.798</td>
</tr>
</tbody>
</table>

Business growth

<table>
<thead>
<tr>
<th></th>
<th>bg1</th>
<th>0.906</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bg3</td>
<td>0.890</td>
</tr>
<tr>
<td></td>
<td>bg2</td>
<td>0.864</td>
</tr>
</tbody>
</table>

Subjective success

<table>
<thead>
<tr>
<th></th>
<th>sbs5</th>
<th>0.843</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sbs4</td>
<td>0.821</td>
</tr>
<tr>
<td></td>
<td>sbs3</td>
<td>0.796</td>
</tr>
<tr>
<td></td>
<td>sbs1</td>
<td>0.765</td>
</tr>
</tbody>
</table>

Notes: AVE = summation of the square of the factor loadings
CR = square of the summation of the factor loadings
α = Cronbach’s alpha
Source: Authors’ own estimation

4.3 STRUCTURAL MODEL

To test the fitness of the model and hypotheses assessment; the application of structural equation model (SEM) was employed to get the suitable outcomes from the data. With regard to the scores of CMIN=χ2/chi-square, it is found to be 2.787. The goodness-of-fit index (GFI) is noted as 0.929; adjusted goodness-of-fit index (AGFI)=0.943; normed fit index (NFI)=0.922; comparative fit index (CFI) and root mean square error of approximation (RMSEA) were found respectively (0.962; 0.048) within the adequate scores (Table 3 and Figure 2). Furthermore, to assess, the hypothesized paths, critical ratio (CR) and p-value were observed to ensure the strength of the impact of predictors on criterion constructs (Sullivan and Feinn, 2012).

The scores of SEM accepted the H1, H2 and H3 by confirming the significant and positive effect of work engagement on innovative behaviour, business growth and subjective business success respectively (H1=SE=0.025, CR=7.666***; H2=SE=0.033, CR=9.437***; H3=SE=0.032, CR=7.659***, p<0.01) (figure 2 and Table 4). According to the expectations, we found a negative and non-significant effect of workaholism on innovative behaviour and business growth (H4=SE=-0.010, CR=-0.544; H5=SE=0.038, CR=-0.711, p>0.01), while the insignificant effect of workaholism was noted on subjective business success (H6=SE=0.019, CR=0.121, p>0.01) (figure 2 and Table 4). As a result, H4, H5 and H6 were accepted by the data. Further, the self-efficacy was also found to be the significant predictor of innovative behaviour, business growth and subjective business success (H7=SE=0.034, CR=5.738***; H8=SE=0.029, CR=6.003***; H9=SE=0.040, CR=9.000***, p<0.01). Henceforth, H7, H8 and H9 were
supported (figure 2 and Table 3). Finally, there is a positive and significant effect of self-efficacy on work engagement (SE=0.034, CR=5.444***, p<0.01). Therefore, H10 was also accepted (figure 2 and Table 4).

### Table 3. Goodness of fit indices

<table>
<thead>
<tr>
<th>Model fit indicators</th>
<th>CMIN/df</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested values</td>
<td>&lt; 3</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Note: CMIN=χ²/chi-square/df; df=degrees of freedom; GFI=goodness-of-fit index; AGFI=adjusted goodness-of-fit index; NFI=normed fit index; CFI=comparative fit index; RMSEA=root mean square error of approximation.

Source: Estimated the authors

**Figure 2. Structural equation model**

Source: Estimated by the authors
Table 4. Hypotheses assessment

<table>
<thead>
<tr>
<th>H.No</th>
<th>Proposed paths</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Work engagement → innovative behaviour</td>
<td>0.216</td>
<td>0.025</td>
<td>7.666</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Work engagement → business growth</td>
<td>0.232</td>
<td>0.033</td>
<td>9.437</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>Work engagement → subjective business success</td>
<td>0.209</td>
<td>0.032</td>
<td>7.659</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Workaholism → innovative behaviour</td>
<td>-0.023</td>
<td>-0.010</td>
<td>-5.444</td>
<td>0.0738</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>Workaholism → business growth</td>
<td>-0.022</td>
<td>0.038</td>
<td>-0.711</td>
<td>0.479</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>Workaholism → subjective business success</td>
<td>0.009</td>
<td>0.019</td>
<td>0.121</td>
<td>0.969</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7</td>
<td>Self-efficacy → innovative behaviour</td>
<td>0.193</td>
<td>0.034</td>
<td>5.738</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8</td>
<td>Self-efficacy → business growth</td>
<td>0.222</td>
<td>0.029</td>
<td>6.003</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H9</td>
<td>Self-efficacy → subjective business success</td>
<td>0.334</td>
<td>0.040</td>
<td>9.000</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H10</td>
<td>Self-efficacy → work engagement</td>
<td>0.079</td>
<td>0.034</td>
<td>5.444</td>
<td>***</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Note: SE=standard error; CR=critical ratio; p=significance level; ***p<0.05
Source: Calculated by the authors

5 DISCUSSION AND CONCLUSION

In this study, we delved into the entrepreneurial performance landscape in Saudi Arabia, focusing on understanding the intricate relationships between work engagement, Workaholism, and self-efficacy. Our investigation involved gathering responses from a cohort of Saudi entrepreneurs and constructing a comprehensive conceptual model, which we then subjected to rigorous analysis using Structural Equation Modeling (SEM) techniques.

Our research uncovered several significant insights. First, we observed a robust and positive connection between work engagement and fundamental aspects of entrepreneurial performance, namely innovative behaviour, business growth, and subjective business success. This finding affirmed our initial hypotheses (H1, H2, and H3) and highlighted the vitality and dedication exhibited by Saudi entrepreneurs in their work. They showcased remarkable energy and a strong commitment to their endeavours, demonstrating a keen ability to generate innovative solutions and effectively translate them into tangible business growth and overall satisfaction.

In contrast, our analysis revealed a less favourable picture regarding the impact of Workaholism. We identified Workaholism's negative and non-significant influence on both innovative behaviour and business growth, with no significant effect on subjective business success. This outcome led us to accept hypotheses H4, H5, and H6. While Saudi entrepreneurs exhibit high levels of dedication, the potential downsides of overwork, including boredom, fatigue, and burnout due to extended working hours and less enjoyable tasks, may have mitigated their entrepreneurial performance.

Lastly, self-efficacy emerged as a pivotal predictor of entrepreneurial success in Saudi Arabia. Our analysis validated hypotheses H7, H8, H9, and H10, underscoring the...
profound influence of self-efficacy on innovative behaviour, business growth, subjective business success, and work engagement. Saudi entrepreneurs exhibited unwavering confidence in their ability to navigate challenges and devise innovative solutions, fortifying their business success and heightened work engagement.

The SEM analysis unveiled a complex interplay among work engagement, workaholism, self-efficacy, and entrepreneurial performance in the Saudi context. While work engagement and self-efficacy played instrumental roles in driving entrepreneurial success, Workaholism exhibited a less significant impact. These findings offer valuable insights into the dynamics of entrepreneurial performance within Saudi Arabia and provide practical implications for entrepreneurs and researchers alike in this region.

6 IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

This study carries substantial implications and contributions across multiple dimensions. On a practical level, it underscores the importance of emotion regulation strategies, particularly for entrepreneurs, and workaholic entrepreneurs in particular, who may benefit from employing cognitive reappraisal techniques. Besides, the study emphasizes the broader societal significance of enhancing entrepreneurial performance, as it plays a pivotal role in offsetting economic recessions, generating employment opportunities, and fostering wealth creation. This underscores the importance of developing employees' self-confidence and engagement in their work, ultimately contributing to societal well-being.

From a theoretical standpoint, this investigation has the potential to significantly advance the field by introducing a comprehensive model that integrates work engagement, workaholism, self-efficacy, and job performance. Prior research has predominantly focused on these concepts individually, but their integration provides a robust theoretical foundation for scholars to explore these interrelated phenomena holistically. Furthermore, this study's contextual contribution is noteworthy, offering empirical insights that can serve as a valuable reference for other developing countries seeking to investigate the relationships between work engagement, workaholism, and entrepreneurial performance among their entrepreneurs. The study also introduces a new model that sheds light on job performance criteria, focusing on enhancing self-efficacy and work engagement while reducing workaholism, providing a valuable framework for management and business literature, especially within developing contexts.
However, it's essential to acknowledge the study's limitations. The cross-sectional design and reliance on self-report measures, while suggestive of objective entrepreneurial performance, may not capture the full complexity of these constructs. Besides, convenience sampling may introduce selection bias, limiting the generalizability of the findings to the broader population. The relatively modest sample size of 278 participants further constrains the study's generalizability. Finally, the study's conceptual foundation needs a specific or well-defined theoretical framework.

In future research endeavours, it is advisable to conduct more extensive longitudinal studies involving more prominent and diverse samples over extended periods, accounting for potential shifts in individuals' attitudes and behaviours. Besides, adopting probability sampling techniques can enhance the sample's representativeness and bolster the study's external validity. Future investigations may also consider exploring factors such as desirability, feasibility, social networks, and entrepreneurial orientation to understand entrepreneurial performance among entrepreneurs better. These potential avenues for future research can further enrich our understanding of this complex interplay between psychological factors and entrepreneurial success.

ACKNOWLEDGMENTS

The authors are sincerely thankful to the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia for providing the funds. The authors also appreciate the respondents who gave their precious time for providing their valuable responses.

FUNDING

This work was supported by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Project No. GRANT 4438].
REFERENCES


Kelley, D.J., Bosma, N., & Amorós, J.E. (2010), The global entrepreneurship monitor, 2010, Global Report, Babson College, Babson Park, MA; Universidad del Desarrollo,
Santiago, Chile; Ha´sko‘linn Reykjavík University, Reykjavík, Iceland; and Global Entrepreneurship Research Association, London.


Van Beek, I., Taris, T.W., & Schaufeli, W.B. (2011). Workaholic and work engaged employees: dead ringers or worlds apart?. *Journal of Occupational Health Psychology*, 16, 468-482.


