International Journal of Management Thinking ISSN: 3009-0016
Vol 3, No.1, 2025
https://doi.org/10.56868/ijmt.v3i1

International Journal of Management Thinking
Vol 3, No.1, 2025
ISSN: 3009-0016
https://doi.org/10.56868/ijmt.v3i1

International Journal of Management Thinking (IJMT) is an open access, peer-reviewed international journal that deals with both applied and theoretical issues in the field of Management.

To be included in the journal, a manuscript must make empirical, theoretical, and methodological contributions in the field of management science.

Generally, accepted papers will appear online within 2-3 weeks. The journal publishes original papers including but not limited to the following fields:

- Management Thinking
- Leadership and Management
- Project Management
- Operations Management
- Supply chain Management
- Organizational management
- Education Management
- Economic Thinking
- Environmental management
- Construction management
- Tourism management
- Human resource management
- Natural resource management
- Waste management
- Water Management
- Flood Management
- Information Management
- Learning management
- Data Management

International Journal of Management Thinking (IJMT) operates through the peer-review process and is associated with United Frontiers Publisher. It is not associated with or does not represent any governmental, non-governmental organization, or any public or private university.

International Journal of Management Thinking
Vol 3, No.1, 2025
ISSN: 3009-0016
https://doi.org/10.56868/ijmt.v3i1

Editorial Board

International Journal of Management Thinking
Vol 3, No.1, 2025
ISSN: 3009-0016
https://doi.org/10.56868/ijmt.v3i1

Table of Content

Vol.3, Issue.1, (2025)
International Journal of Management Thinking
https://doi.org/10.56868/ijmt.v3i1.81

Exploring the Hashtag Movements Role on Facebook in Political Activism Among Youth of Pakistan: A Digital Ethnography

Asmaa Shahid

School of Sociology, Quaid-I-Azam University, 4400, Islamabad, Pakistan

Article Information

Article Type: Research Article

Dates:
Received: January 15, 2025
Revised: February 18, 2025
Accepted: February 24, 2025
Available online: February 27, 2025

Corresponding Author: Asmaa Shahid

shahidasmaa062@gmail.com

https://orcid.org/0009-0006-7687-374X

ABSTRACT

This study aims to examine the youth in political activism through Facebook in Pakistan, A digital anthropology study focusing on the attitudes, motivations, and objectives that drive youth to participate in online political matters. The research explores how political mobilization is raised on Facebook through a hashtag movement. By adopting a digital anthropology approach, the study employed participant observation to collect qualitative data from purposively sampled Facebook posts, comments, and content related to political activism for the specific hashtags. The sample size of about 350 posts, 1,200 comments, and around 800 reactions and shares were analyzed. The data were analyzed thematically to identify trends and patterns in youth engagement. The findings reveal that Facebook is a significant platform for youth political activism, enabling anonymous participation that encourages freedom of expression. However, the platform is also marked by widespread abusive behaviour and hate speech. The study highlights the prevalence of hashtag movements and online mobilization as key strategies for political engagement, with youth leveraging these tools to influence public discourse and advocate for political causes. The study concludes that Facebook has transformed political activism by providing a virtual space for dialogue and mobilization but also emphasizes the need for measures to curb online abuse. It suggests promoting digital literacy and fostering constructive political engagement to enhance the positive impact of social media on political discourse. This study advances knowledge of Pakistan's complex interactions among technology, young culture, and political activity.

Keywords: Facebook; Youth; Political Discourse; Social Networking Sites; Political Activism; Pakistan; Digital Ethnography

1. INTRODUCTION

Social media has emerged as a transformative innovation, reshaping global communication and establishing itself as a vital platform for political activism (Kaplan & Haenlein, 2010; Flew & Iosifidis, 2020). Pakistan's political environment has also been shaped by users of social networking sites such as Facebook, YouTube, TikTok, Twitter (X), Instagram, and others (Bano et al., 2021).

Khan et al. (2021) postulated that the people of Pakistan utilize digital platforms to resolve conflicts, construct an identity, and carry out some political activities. Social media has transformed the organizational culture and the conduct of political and social events (Vaccari et al., 2015). It has also enabled users to provide forums where opinions and behaviours can be demonstrated, and political discourse can be sought (Masiha et al., 2018). The popularization of social networking sites has developed digital culture, thus promoting political movements among the youth. Social media has played a pivotal role among Pakistani youth, as approximately 64 per cent of Pakistan's population comprises youth under 30 (Ali, 2023). The context offers a good chance to study youth political activism. Young people of Pakistan have remained politically disadvantaged in the country since the earliest days. However, Pakistani women have recently enhanced their political participation through social media (Shehzad et al., 2021). Women's participation can be a revolutionary factor in the country's political system. According to Shehzad et al. (2021), Pakistan has about 43 million monthly active Facebook users, comprising 78.4% male and 21.6% female users aged between 25-34 years old.

Although youth political activities on social media platforms are gradually gaining importance, limited studies have been conducted regarding the psychological insights, perspectives, and aspirations for such activity among the youths of Pakistan (Farooz, 2023). This study seeks to address that gap by establishing how the youth of Pakistan participate in the political conversation on social media, why they choose to partake, and what consequences of the practice can be seen. The study contributes to the existing literature on young persons' political participation, politics on social media, and social movements, as it provides valuable information on how young people use social media for political activities. Also, the role of such channels in cultivating youth's political identity and political dissent and conducting political organization is emphasized. Apart from enriching the topic of social media and politics within academia, this research also offers tangible suggestions for increasing positive political engagement among young Pakistanis.

The research aims to achieve three main objectives: examine youth political activism through Facebook in Pakistan. Secondly, it aims to understand the motivations, attitudes, and aspirations of youth engaging in political discussions online. Lastly, the study aims to provide recommendations for policymakers and stakeholders on effectively engaging youth in the political process. Based on objectives, the research focuses on three key questions: How do Pakistani youth engage in online political discourse and activities? How do they express their motivations, attitudes, and aspirations through these online discussions? Moreover, how do political situations influence the social identities, civic participation, and political mobilization of Pakistani youth?

2. LITERATURE REVIEW

Global statistics using social media reported by Kemp (2023) show that approximately 5.24 billion people use social media, representing about 63.9% of the global population. Among other social media platforms, Facebook remains the most popular platform, boasting 3.07 billion active users monthly, followed by YouTube with 2.5 billion users. Ahmad et al. (2024) reveal that there were 4.88 billion social media users worldwide, representing 60.6% of the global population. Today, in the past year alone, social media sites' usage has grown immensely; 173 million new users registered (Hamza et al., 2023).

2.1 Social Networking Sites (SNSs)

Social networking sites are interconnected platforms that allow users to develop public profiles and interact with others (Eijaz, 2013). A social networking site is also acknowledged as a social networking internet site or social website (Gomez, 2014). A social networking site is any site that has a communal or semi-public profile page containing dating sites. Undoubtedly, a social media site has outlines and connections linked with the tools to share live content. Facebook has become the most extensively used social media website and the most broadly used social networking site (Kamel, 2014).

Social networking sites (SNSs) have become instrumental platforms for collective and political mobilization (Gomez, 2014), serving diverse purposes across various groups. Activists leverage SNSs to disseminate information on protest logistics and Government actions, while political parties utilize them to broadcast their messages, build databases, and influence public engagement. Citizens, in turn, rely on these platforms for news, election information, and insights into political candidates' agendas and performances, as about 35% of young Americans aged 18-29 learn about the 2016 presidential election through SNSs (Bhatti & Tareen 2021). In Pakistan, a significant portion of the youth actively engages with social media, using it as a primary source of political awareness. The general elections of 2013, 2018, and 2024 witnessed a substantial shift, with political campaigns being orchestrated mainly through social media; hence, SM played a pivotal role in mobilizing voters, spreading political narratives, and shaping public opinion, making it an essential tool for political engagement and activism among the younger generation.

2.2 Facebook and Political Participation

Before the advent of social media, the interim in newspapers and radio and television promotion were constrained and costly; thus, youth could not voice their views or join politics during the old broadcasting (Mustapha et al., 2023). However, in modern years, there has been an improvement in political concern and involvement amongst youth (Fatkin & Lansdown, 2015), specifically with the creation of social media such as Facebook; the precedent and decisions for political involvement have significantly changed. Facebook portrays an influential character as the youth utilize the place to contribute to political issues (Theocharis & Lowe, 2016).

Youth are now progressively utilizing Facebook to power social and political transformation (Kugelman, 2012; Orfan, 2021), and it is now easing new practices of political activism among them (Tang & Lee, 2013). The arrays of political activism with youth previously have been transformed. What is it in Facebook that is affecting youth to contribute to politics? To answer these questions, some scholars have proposed assessing specific characteristics of Facebook, such as use patterns, the network formation of friends on Facebook and relations with political figures (Tang & Lee, 2013).

In Pakistan, the widespread use of Facebook enables individuals to engage in political discussions, share political content, and organize for various political causes. The platform allows users to interact with political figures, parties, and activists directly, thus facilitating a more interactive and accessible political environment. It is particularly relevant for Pakistan's youth, who comprise a significant portion of the population and increasingly use Facebook to stay informed, express their views, and advocate for political change (Ahmad et al., 2024). Social media platforms like Facebook allow for the rapid dissemination of political messages, influencing public opinion and shaping political discourse (Baumgartner & Morris, 2010). Moreover, Facebook provides a space for individuals to mobilize support for causes and campaigns, which has been evident in Pakistan, especially during election periods or significant political movements (Waller, 2013).

However, while Facebook offers new opportunities for political participation, it also presents challenges such as misinformation, echo chambers, and the potential manipulation of public opinion, all of which can profoundly affect political behaviour and social mobilization in Pakistan.

2.3 Political Activism and Youth Participation

According to Tang and Lee (2013), political activism involves movements such as reaching political groups, networking with politicians, polling, making appeals online, volunteering, or joining movements. Political involvement is the essential element and organization of effective democratic organizations (McManimon, 2014). Recently, with the propagation of social networking sites such as Facebook, the design and choices for political involvement have been highly altered. Facebook is now participating in a valuable position, “migration development," in which the youth employ the place to contribute to political concerns (Waller, 2013). youth are progressively employing Facebook to power social and political alteration (Vitak et al., 2011), and it is now smoothing new models of political involvement among them.

2.4 Political Activism by Youth Through Facebook

Politics is the practice and theory of influencing decisions within a group, particularly the governance of a state and the management of its internal and external affairs (Shaheen, 2008; Vong & Hok, 2018). Involvement is the path societies can take to prompt their requests and petitions and persuade the spreading of worthy means (Pempek et al., 2009). Testimony indicates cyberspace is a place for connecting in altered party-political discussion and interest classes, notably including unwanted youth in more conventional political areas. Jawed et al. (2023) studied how Pakistani youth use Facebook to develop a more collective identity. They argue that these new platforms, which they say are like Facebook, are today's practice' public spheres' that youths use to engage and struggle with power relations in real time.

The arrest of former Prime Minister Imran Khan in May 2023 received extensive protests nationwide, showing that social media plays a crucial role in increasing politicization (Ahmad et al., 2024). Facebook was central in sharing information on the protests and publishing live speeches, indicating social media's role in political discourse and opinion. Despite these protests being high-risk and unpredictable, they also highlighted using social media as a platform to voice and organize grievances. Political disputes were solved during private relations between party officials (Orfan, 2021).

2.5 Slacktivism (Hashtag)

The activism on social media has been criticized, and it has fallen to be identified as slacktivism. It has also been named Hashtag, token, and armchair activism. Slacktivism examines online involvement needing minimal effort and dedication. In other words, it is a commitment to show complimentary assistance to a political reason on SNSs without obligating to assign important attempts to it (Shaheen, 2008). Slacktivism is a virtual activism whose charge and danger are minimal. Clicktivism is an additional term used interchangeably with slacktivism, which suggests that SNS consumers can connect “like”, “share,” or “comment” buttons to program their sponsor for a political root, and they suspect that they are indeed facilitating it. Hamza et al. (2023) learnt about the political applications of social networking set by youth in the US 2008 presidential primary election. They said SNSs barely influenced political information, conflict, or the contribution of youth. However, they identified them as feasible informants of news (Jawed et al., 2023whether SNSs, particularly Facebook, had an involvement in youths' political involvement. They resolved that SNSs barely impacted the youth's political contribution (Orfan, 2021).

3. METHODOLOGY

An ethnographic approach was employed to conduct an in-depth analysis of social media interactions, focusing on participant observation and data collection from relevant online communities. The authors identified Facebook groups, pages, and communities associated with political discourse and youth engagement. Groups such as “Pakistan Politics”, “The Current”, and unofficial pages of political figures, including “Imran Khan”, “Nawaz Sharif”, and “Bilawal Bhutto”, were selected for this study. Some groups were already part of the researcher's network. In contrast, others were discovered and joined specifically for this research by joining these groups on Facebook to observe the dynamics of various political opinions and how youth engage with them.

3.1 Observation & Interaction

A passive observation approach ensured that interactions were natural and unaltered. The researcher refrained from posting content or directly participating in discussions but engaged in purposeful observation, documenting user actions, comments, and recurring themes or patterns. The observation period lasted from May to August 2023, during which key political events, such as the arrest of former Prime Minister Imran Khan, triggered widespread protests across Pakistan, further energizing political conversations. These events provided critical context for understanding the dynamics of youth engagement and political activism on Facebook during this time.

3.2 Sampling & Sampling Size

Purposive sampling was employed to identify relevant Facebook groups, pages, and posts for analysis. The focus was on communities where political discussions were active and youth participation was prominent. The sampling strategy also included evaluating posts directly from the official Facebook accounts of political leaders, including Imran Khan, Nawaz Sharif, and others. Furthermore, specific attention was given to the accounts of political activists and individuals who played a role in mobilizing youth around political causes. These activists, many affiliated with political parties, contributed to online movements, and their posts were instrumental in sparking discussions. The observation continued until data saturation was reached, meaning no new patterns or insights emerged. The final sample included 350 posts, 1,200 comments, and approximately 800 reactions and shares. These data points reflected diverse political ideologies, engagement styles, and activist involvement, ensuring a comprehensive understanding of youth political activism on Facebook in Pakistan.

3.3 Data Collection Methods

Online participant observation was the primary method of data collection. Authors joined Facebook-based political groups and monitored pages and accounts of political parties and figures. Data collection involved documenting posts, comments, likes, shares, and reactions to capture the dynamics of political discussions. The authors captured screenshots and maintained organized records of significant posts and comments. Field notes documented the patterns of interactions and the themes that emerged during the observation period. Various content forms, including text-based posts, images, memes, videos, and articles, were analyzed to gain insights into youth engagement in political activism.

3.4 Data Analysis

The collected data were analyzed using thematic analysis, based on Braun and Clarke (2019). The six steps are familiarization, data coding, theme generation, evaluation, labelling and specification, and final write-up. Excel was used to facilitate the organization and coding of data, ensuring a systematic and comprehensive analysis process. The analysis began with an in-depth review of the collected data, including field notes, screenshots, and observations. The data were then coded using Excel, resulting in the generation of 250 initial codes. These codes were refined, and about 40 irrelevant themes were removed. The remaining 210 codes were grouped into broader and more specific categories.

Through evaluation, 15 preliminary themes emerged. These themes were carefully reviewed and refined, and six final themes were selected that best captured the key patterns and insights related to youth engagement in political activism on Facebook. Each theme was titled to reflect its essence, was supported by data excerpts, and was aligned with relevant findings from prior studies where applicable. The final themes were critically discussed and compared with empirical reviews, offering a robust and nuanced understanding of the data.

3.5 Ethical Considerations

Ethical consideration was taken when some general issues arose in organized Facebook groups; these included privacy settings and access restrictions, as some organized groups had open membership while others wanted members to seek permission to join them. The content that was observed also included politically sensitive aspects. It means that observing and documenting such aspects was done carefully. In that regard, the researcher complied with specific ethical standards to maintain data anonymity and confine the search only to online sources.

4. RESULTS AND ANALYSIS

This study identified unusual forms of political involvement by youth, such as holding office, raising money, creating proof, and other allowed and unexperienced actions that may be impacted by internet use. From the usage of digital knowledge, the internet and social media sites, the past era was revolutionary. Social media has made it the most effective political medium for internet users to engage in and participate in party politics. Internationally, there has been an increase in social media use for political performances, including election campaigns. The internet has benefited students, bloggers, vloggers, celebrities, political parties, political leaders, and followers as a middleman for digital canvases for political and nonpolitical goals. It was revealed that social media has a more significant influence on the results of elections than traditional media. Imran Khan, the former chairman of PTI, is a renowned ex-cricketer of Pakistan and has countless admirers; his political party actively uses social media on a large scale. The supporters and party leaders create numerous sites and groups, excluding the official ones. Analyzing youth engagement in political activism on Facebook revealed six (6) key themes that shape online political behaviour and discourse. Those six (6) themes are defined as;

1. **Abusive Behaviour and Hate Speech**: Online political discourse is frequently marked by derogatory language, personal attacks, and hate speech, mainly targeting political opponents.
2. **Impact of Anonymity on Online Behavior**: Social media's anonymity enables users to express extreme views and engage in negative interactions without accountability.

3. **Political Polarization and Partisanship**: Users strongly align with specific political parties or ideologies, leading to divisive and contentious discussions.
4. **Psychological and Emotional Harassment**: Political figures and activists are often subjected to targeted harassment and bullying, exacerbating tensions in political discourse.
5. **Breakdown of Trust in Political Institutions**: Youth engagement and their perception of political institutions are influenced by widespread frustration over corruption and inefficiency in governance.
6. **Political Mobilization and Hashtag Activism**: Facebook is a powerful tool for organizing protests, advocating for change, rallying support for political causes, and highlighting its role in shaping political action in Pakistan.

The highlighted themes show the growing role of political mobilization, activism, and hashtag movements on Facebook as a powerful tool for organizing protests, advocating for change, rallying support for various political causes, and demonstrating the platform's role in shaping political action in Pakistan.

4.1 Abusive Behavior and Hate Speech among Facebook Users

Figure 1 revealed the presence of abusive language and hate speech among users. Specifically, users frequently used derogatory terms and made offensive comments and posts based on their affiliation with the party. Different slang terms were used to refer to party supporters.

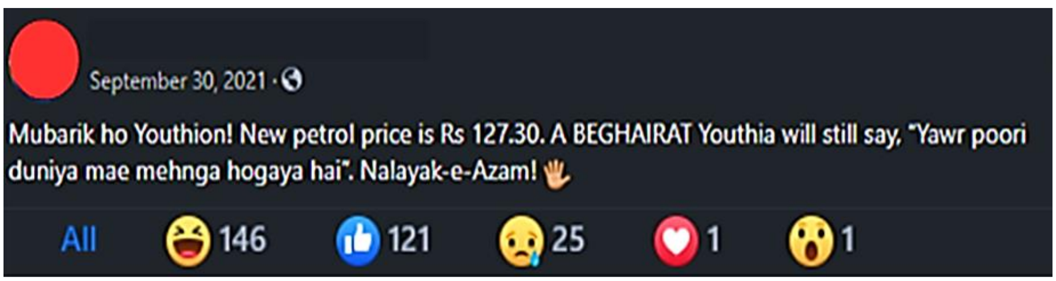

Figure 1: Facebook Post showing Abusive Language (This Picture was taken on September 30, 2021)

One of the activists is using the term "youth" for the supporters of Pakistan Tehreek-i-Insaaf (PTI) supporters and using abusive terms for their picture. The post was about increased petrol prices, which erupted in a discussion among Facebook users inclined more towards abusive language and bashing each other in the comment section. Figure 1 translated and quoted: "*Congratulations, PTI supporters! The new petrol price is Rs 127.30. A shameless supporter will still say. "It has become expensive in the whole world*". Derogatory language and profanity towards the prime minister were also used. Use of such derogatory language or profanity towards any political figure, including the prime minister, is not acceptable and can contribute to a toxic political environment.

Figure 2 shows Title: Patwari is needed here Patwari means supporter of Nawaz Sharif and his party, whereas this post further says in Urdu language quote, *"We need a fresh Patwari who can bark on Imran Khan with enthusiasm, Patwari with more stamina shall be given priority govt of pubjib".* As Shaheen (2008) depicted the Balance Theory, how social media affects consumer behaviour implies that personality opinions are built on a stable opinion connection, such as disliking or liking something. Nearly all authors have accepted Shaheen's Balance Theory to investigate the influence of social media on conduct. He conveyed that agreement advances positive opinions and adverse reactions to arguments.

Figure 2: Facebook Post's Comment Section

One party supporter attacked rival politicians and their supporters while defaming their preferred political party. As seen in Figure 2, the followers harass and abuse politicians and their supporters by calling them inappropriate names and making violent remarks about them. For instance, Youthia (a slang used for the supporters of PTI) and Patwari (a recorder who keeps the land record and is frequently considered fraudulent; the supporters of PMLN are disdainfully convened with this name). In this context, figure 2, the second picture is interpreted as "In a republic where a person like Chaudhry Nisar (Former Interior Minister of Pakistan) discovers out after 35 years that what he has been seeing as a lion is really a donkey. So, think, Patwaris would require at least 100 years to grasp". Likewise, the first picture in the Figure no.2 posted by PTI's follower is an amended picture of Fazal-Ur-Rehman (Leader of Jamiat Ulema-e-Islam), Asif Ali Zardari (Former Leader of Pakistan, PPP), and Mian Muhammad Nawaz Sharif (Previous Leader of Pakistan). The number of likes, comments, sharing and reactions involving laughing, love, and anger also calculates the study conclusions about people's response versus the post.

4.2 Impact of Anonymity on Online Behavior

Facebook has enhanced the path to further contribution to the web. Conversely, the commentary on the Facebook comments section changes significantly from a direct discussion with an acquaintance or other users. Study findings show that users have used anonymity, which can negatively and positively affect the content they share and comment on Facebook. It grants them a wisdom of independence and solitude, accepting them to prompt themselves more easily and willingly without worry of thoughts or reprisal.

Figure 3 shows an anonymous User's Posts and Comments (translated as: *"Leaders From PTI Are Flying Like Shoppers In A Storm"* comments translated "*The way NS flew to London, wait till elections, then see who flies, If you tell the truth, you will be left alone", Shireen Mazari was released by court, then again arrested by Islamabad police from the door of jail, when the time will come on thieves, we will not even let them fly away, shame on you!* Thieves, respectively) that posts and comments are delivered by PMLN supporters bashing Imran Khan, his supporters, and his team leaders by posting anonymously, which shows that a group member feels more comfortable and has more sense of freedom and privacy without being judged.

Figure 3: Anonymous User's Posts and Comments

On the other hand, the above posts' comment section indicated that anonymity on Facebook fosters negative behaviours such as cyberbullying, trolling, hate speech, and harassment, with many users exploiting this feature to post abusive and harassing remarks targeting political parties like Pakistan Tehreek-i-Insaaf (PTI) and PML-N, including offensive terms such as *"choro sharam kro" ("shame on you thieves").* This behaviour, prevalent across political conversations, often garners significant attention, highlighting the role of anonymity in enabling toxic discourse. The preference for anonymity may stem from fears of digital laws, such as the Prevention of Electronic Crimes Act (PECA), or state surveillance mechanisms that monitor dissent (Farooz, 2023). Users may also rely on anonymity to avoid social or political repercussions, as anonymity provides a shield for expressing controversial opinions without accountability (Eijaz, 2013). Studies on the online disinhibition effect suggest that anonymity lowers behavioural inhibitions, facilitating hostile and aggressive expressions that individuals may avoid in identifiable interactions (Samya et al., 2023). While anonymity empowers free expression, it exacerbates aggression and hostility in political discourse, threatening constructive dialogue and deepening social and political divisions (Muzaffar et al., 2014).

4.3 Political Polarization and Partisanship

The presence of hate speech and group polarization on Facebook in political discussions on comments and posts by using derogatory language, insults, and other forms of abusive speech targeting individuals based on their ideology and political affiliations was found to be prevalent across a range of political discussions. This behaviour not only harms those who are targeted but also contributes to a culture of intolerance and prejudice. Politicians generally tweet about the policy opinions their political base aims to hear. However, they figure out in ethical and emotional language that may establish adverse responses from the challenging side (Ida et al., 2020). Youth participation in political activism is politically polarized. Young people with strong opinions and passion for change often engage in political discussions and align themselves with specific ideologies and parties. Figure 4, the comment section of Facebook showing politically polarized comments, shows some comments which are translated as

"*They are ready to return the power to the people. Overseas Pakistanis should stop sending remittances to Pakistan. The usage of imports should be banned. Now, the time has come to learn a lesson from these politicians. Nearly, they will increase taxes on food. Stand up Now, it is up to us to save this country". These corrupt politicians and the army can never do anything in our favour.*

Vote for PTI and stand with Imran Khan; if PMLN workers or MNAs/MPAs are lawful, they should represent Tosha Khana's gifts and property with their families. Thus, justice will prevail based on the ban of these shameless. Still, thief Nawaz Shareef will not be elected respectively) different opinions and ideologies can be seen. Their beliefs are built on the different ideologies or motives of their leader.

Figure 3: Comment Sections of Facebook Showing Politically Polarized Comments

4.4 Psychological and Emotional Targeted Harassment and Bullying

The findings of the study uncovered the existence of persecution and harassment, focused hate speech, and comprehensive hate speech amongst Facebook users who are involved politically in such thoughts. Results present that Directed hate dialogue is very subjective, in contrast to Comprehensive hate speech. Directed hate speech cites words that propose planned action, make speeches, and employ words to delay the act of the target. Directed hate speech is further unofficial, angrier and more advanced and effective than generalized hate speech. As in figure 5 below, "Post and Comment Section Showing Generalized and Direct Hate Speech and Harassment towards PMLN", which is (*translated as: free heart treatment on health care has been stopped in Punjab. A few months ago, a princess expressed her desire to stop health care by sitting in the PM's house, and the slave Government has fulfilled her wish today*). Study findings indicate that there is a prevalence of mocking behaviour towards the PMLN Government and direct hate speech towards Maryam Nawaz Shareef in the comments section.

Figure 5 shows a post by a Pakistan-Tehreek-Insaaf (Political Party) supporter claiming the ban on complete free heart operations by Sehat card in Punjab. The discussion in the comment section mentions the abusive behaviour of PTI supporters. It makes it evident that while some social media users are well-cultured and educated, the majority are not. However, an informed individual could not have predicted their poor behaviour or verbal abuse of others. Unfortunately, because social media sites like Facebook, which offer anonymity and distance, they can serve as a breeding ground for abusive behaviours. The people in the comment section, as shown in Figure 6 above, "Direct Hate Speech and Harassment Comments," which is (translated as: (slang) "*the people will say that in elections, the army is on them, property dealers, and this is to happen to this slave nation?*" It was triggered by the PMLN's leader, Maryam Nawaz Sharif, 's desire to ban operations on the Sehat card (The Sehat card was a project initiated by Imran Khan" due to which a wave of hatred and aggression spread among PTI supporters. Various explanations and comments come from the supporters of the ruling and opposing parties.

Figure 4. Post and Comment Section showing generalized and direct hate speech and harassment towards PMLN

Figure 5: Direct Hate Speech and Harassment Comments

There had been repeated use of profanity and mimicry. In Figure 6 above, the abusive language in the comment section used by supporters can easily lead to violence.

4.5 Breakdown of Trust in Political Institutions and Justice System of Pakistan

The youth of Pakistan does not trust the Pakistan justice system as well as the primary two political patties. The public's mounting lack of self-confidence in organizations entrusted with the conventional obligation of controlling the typical political and economic conditions is backing a climate of scepticism and vagueness. The Pakistan army especially plays a negative role in the country's politics. It supports the most corrupt leaders of other parties against Imran Khan, the most popular leader. Has a party won the 2013, 2018 and 2024 elections with majorities. However, several evidence show the justice system rigged the election with the full support of the Pakistan army and let the opponent parties, PMLN and PPP, win because both of them are corrupt and suit the corrupt system, especially the Pakistan Army.

Imran Khan's arrest has created massive unrest in the politics of Pakistan and as well created aggression among its supporters, which then resulted in havoc in different parts of the country; people started protests in many places and were put in jails and due to this, chaos spread among people, and people also lost faith in the judicial system of Pakistan.

The study findings reveal that people do not have trust in the political institutions and the justice system of Pakistan and reveal that there is a lack of trust among youth and the justice system of Pakistan. They express their distrust through comments criticizing the Government, political parties, and the judiciary. Figure 7 shows *"Posts and Comments Showing Mistrust in Judiciary and Political Parties," which is in Urdu (translated as: chicken boycott-fruit boycott-electricity bill's boycott- try boycotting the wrong politicians once and maybe some things will improve, we will fight justice till the last breath for our captain Imran khan. For Pakistan, we will fight till the end with our blood as well, as in Turkey and Srilanka; if the people do not drag them to the streets,* closed-room decisions will continue to be imposed). It reflects a sense of disillusionment and frustration with the current political landscape in Pakistan.

Figure 6:Posts and Comments Showing Mistrust in Judiciary and Political Parties

4.6 Political Activism and Hashtag Movements

Facebook posts concerning Imran Khan's release generated significant engagement, evidenced by high average counts of likes, reactions, and shares per post and emotional appeals prominently featured in these posts, encompassing sentiments such as empathy, frustration, and support. Many FB users employed emotionally charged language, shared personal narratives and conveyed their belief in Khan's innocence to advocate for his release. These emotional expressions mobilized support and influenced public perceptions of his case. The strategic use of hashtags played a pivotal role in amplifying the reach of such posts, reflecting the utility of social networking sites (SNSs) in facilitating social transformation by disseminating awareness and fostering collective understanding of critical societal issues (Dadas, 2018).

These hashtags were used to support Imran Khan and call for his release. These hashtag movements served as a way for people to voice their opinions and show solidarity with the cause. As we can see in the above posts and comments of the public and supporters of Imran Khan, the emotional attachment and support led them to organize these movements on Facebook to show their support and demand his release.

These demonstrations served as a way for people to express their solidarity and voice their concerns about the situation. Such protests aimed to raise awareness and pressure the authorities to address the issue, leading them to perform offline political activism. Study findings of emotional appeals on Facebook posts advocating for Imran Khan's release shed light on this issue's emotional dimension.

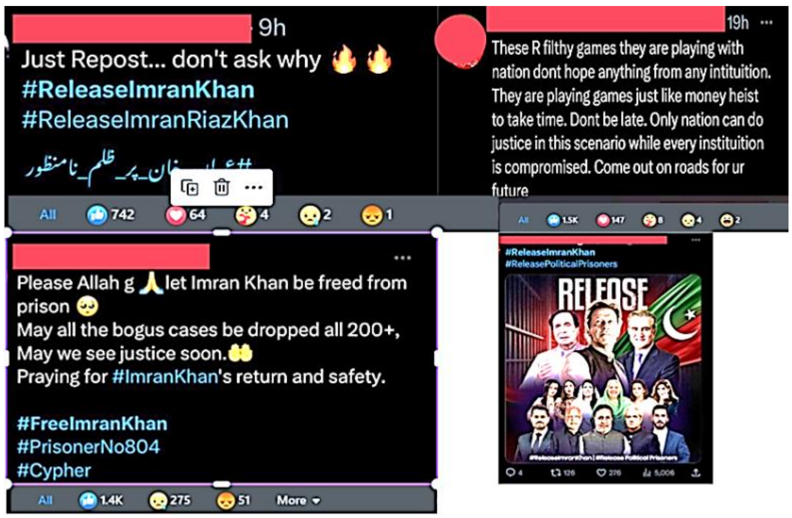

Figure 7: Post showing #freeimrankhan movement

Figure 9 shows the Aurat March movement "The Women March Movement" is said to be a feminist movement in Pakistan. People and activists use hashtags on social media platforms, especially Facebook, to make people aware of the cause and their demands and to promote their rights. The prominent and eye-catching themes within this movement on Facebook are gender equality, women's rights, and empowerment, with users sharing their personal stories, artwork, and mottos, such as one of the ladies holding a banner like *"Aoo Khana Khud Pakayein, Ghar ka Kaam, Sab Ka Kaam"* and many others challenging equality for both males and females. Also, there was a notable emphasis on reproductive rights or intriguing gender norms. The emotions conveyed in posts managing the #AuratMarch hashtag were primarily optimistic, with consumers communicating harmony, collaboration, and excitement for their movement. However, there were instances of criticism and debate, primarily surrounding the slogans that were against the moral values and norms, such as another banner, "Mera Jism Meri Marzi".

The Aurat March movement hashtag on Facebook highlighted the active engagement and support for gender equality and women's rights issues within the online community. It shows that women workers and female political and social activists on Fakebook and other social media sites initiated several hashtag movements related to the Aurat March in 2023. Such movements include hashtags such as #auratmarch2023, #mybodymychoice and #feministrevolution. These hashtags were used to promote women's rights, gender, and equality and highlight the issues women faced in Pakistan. Such movements aimed to create awareness, challenge societal norms, and advocate for inclusive and equal rights for all genders. The Aurat march has received mixed reactions from the public, as shown in Figure 9 above. It can be seen in the image, which includes the concerns about the march, slogans and signs used during the march, which some individuals find controversial or offensive. Additionally, there are debates about the march's perceived alignment with Western feminism and the tension between cultural values and progressive ideals.

The Aurat march has received mixed reactions from the public, as shown in Figure 9. The image includes concerns about the march, the number of likes and post sharing, and comments indicating the active participation of Facebook users.

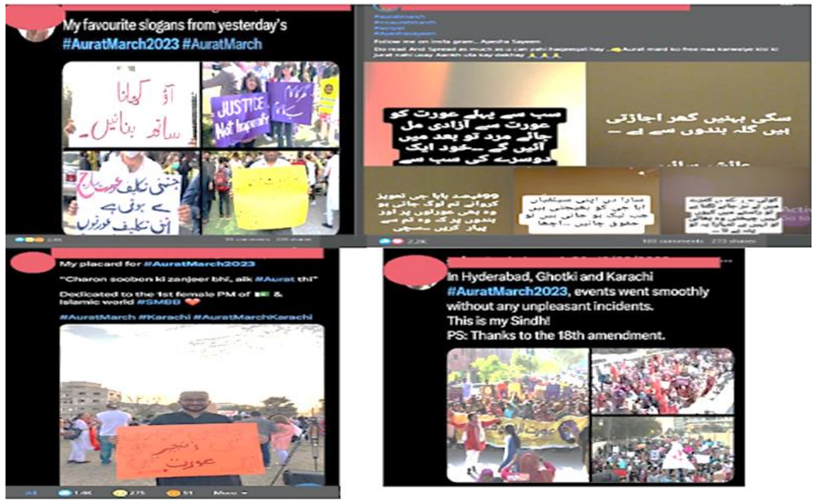

Figure 8: Posts showing the Aurat March Movement, a "women's movement"

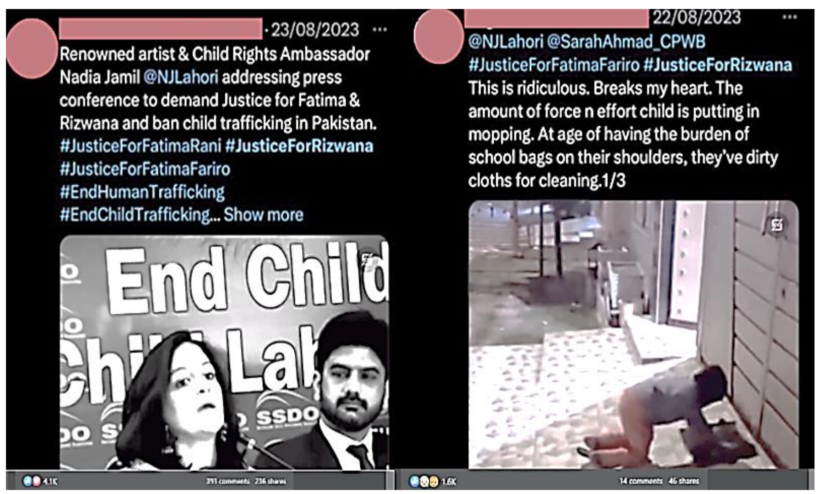

Figure 9: Post showing justice for Rizwana and to end child trafficking

The hashtag #EndChildLabor was found, and these posts collectively received several likes, shares, and comments, indicating a significant level of engagement. Figure 10 shows the prominent themes within the #EndChildLabor and justice for Rizwana hashtag movement on Facebook. These themes included child rights advocacy, awareness campaigns, and stories of child labour survivors, with users sharing compelling narratives and striking visuals. The feelings shown in such posts using hashtags like #EndChildLabor and justice for Rizwana hashtag were tremendously encouraging, with users determining deep support for endeavours to end child labour worldwide. The conversations are frequently directed through the stress of interest and the stress of joint action, improving collaboration among advocates. Numerous influential organizations working for child rights and supporters appeared as key symbols in the #EndChildLabor hashtag association. Remarkably, Nadia Jamil was among the most active providers, with their support often getting high levels of engagement on social media and offline.

The Justice for Rizwana hashtag movement aimed to attract interest in her case and petition for legal action against the perpetrators. Such movements can assist in compelling agencies to examine and influence the preparator responsible.

4.7 Summary of Themes

Table 1 summarizes the hashtags the Pakistani youth used in political and social movements on Facebook.

Table 1: Overview of Hashtags Used in Political Activism and Social Movements on Facebook

Hashtag	Purpose/Theme	Reason for Inclusion
#Aurat March	Gender equality, women's rights, and empowerment	To highlight and promote awareness about gender equality and women's rights issues
#MyBody My Choice	Promotion of reproductive rights and challenge to gender norms	To challenge societal norms, advocate for reproductive rights, and support women's autonomy
#Feminist Revolution	Feminist activism and gender equality	To engage in feminist activism, support gender equality, and challenge patriarchal structures
#End Child labour	Advocacy against child labour, child rights awareness	To raise awareness about child labour, advocate for child rights, and mobilize for change
#JusticeForRizwana	Justice for child labour survivors, legal action for perpetrators	To demand justice for child labour survivors and ensure legal accountability for perpetrators

The study conducted a thematic analysis, which brought up several key themes focused on political discourse and one concerning youth engagement on Facebook in Pakistan. It was rife with abusive behaviour and hate speech, with users commonly adopting derogatory terms and offensive language to berate political figures and their supporters, especially among polarized groups. The opposite side was denigrated. PTI supporters were called “youthi”, PML-N supporters were called “Patwari”, and the political environment became very poisonous. Anonymity also significantly impacted online behaviour as users would often be less thoughtful and express themselves more freely and aggressively behind the cloak of anonymity; for instance, to a greater degree in politicized discussions, anonymity is tied to an increase in cyberbullying, trolling, and hate speech. Maintaining anonymity also urged users to be without responsibility for the hurtful comments that often fostered hostility and polarization. Many, unafraid to express their political affiliation, had been polarized by politics and partisanship; they debated one another on Facebook until citizens' ideas were reinforced, and there was a refusal to recognize opposing views. As a consequence, the atmosphere became one of entrenched political ideology and brutal critical dialogue. According to another theme, psychological and emotional targeted harassment and bullying were spreading in the form of emotional attacks on political figures, activists and political parties, deepening divisions and creating hatred.

The study also highlighted a breakdown of trust in political institutions and the justice system in Pakistan, as users expressed their disillusionment with the Government and judiciary, particularly in the wake of significant political events such as the arrest of Imran Khan. It led to widespread protests and distrust in the political system, as seen in online comments. Finally, political mobilization, activism, and hashtag movements were crucial in shaping political engagement on Facebook. Hashtags like #AuratMarch, #EndChildLabor, and #JusticeForRizwana were used to organize and promote causes, particularly women's rights, child labour, and justice. These movements harnessed the emotional power of social media to advocate for change, mobilize support, and create awareness, demonstrating Facebook's potential as a tool for political activism.

However, despite its capacity for activism, Facebook also acted as a space where toxicity, harassment, and political fragmentation thrived, limiting its effectiveness in fostering productive political dialogue.

4.8 Discussion

The findings of this study highlight several key themes surrounding the role of Facebook in political engagement and activism in Pakistan. The presence of abusive behaviour and hate speech among users was notably prominent, with derogatory terms and offensive comments frequently directed at political figures and their supporters. This online aggression, driven by partisan politics, often involved the use of youthlike "youth" for PTI supporters and "patwari" for PML-N supporters, underscoring the deep-rooted political divisions in the country. These interactions reflect personal animosities and contribute to a toxic online environment where political discourse becomes increasingly hostile and less productive. Such hate speech, which frequently targets individuals based on political affiliation, exacerbates the already existing political polarization and creates barriers to constructive dialogue.

Meanwhile, the study also showed how anonymity influenced online behaviour since users who used Facebook felt emboldened by this sense of privacy and were more prone to engage in behaviour such as cyberbullying, trolling and hate speech. Compared to the human version of manners, anonymity nullified social inhibitions, the most aggressive and offensive comments without fear of direct consequences. It did not only exacerbate political divisions but emboldened acts in a harmful way under the motivation of anonymity. These findings imply that as a platform, Facebook is turning into a place for negativity and aggression, where meaningful and respectful engagement is seemingly on the verge of annihilating. The apparent political polarization and partisanship within youth made the atmosphere even worse, with users tending to side with a particular political ideology and spending hours arguing with each other on entirely shallow issues. This polarization between the comments and posts on Facebook increased partisan identity and made it nearly impossible for users to view opposing points of view objectively. Political polarization in Pakistan indicates a more significant phenomenon: party loyalties are more important than reasoned debate, and a “US versus ME” perspective exists. Such forms of division inhibit political dialogue and widen the chasm between people across various socioeconomic spectra.

A further disquieting finding of the study was that there was widespread psychological and emotional harassment and bullying. Especially in the comments section of posts related to politically sensitive issues, such as Imran Khan's arrest, was the type of harassment due to which Instagram was quite sought by her followers. The abusive language was often used in the harassment of political leaders and their supporters, with derogatory comments about opponents intended to attack the legitimacy of the hold they had on the country. Such targeted harassment has a high emotional cost at a time when participation in political discourse must be encouraged and when the potential for further alienation from the political process must be minimized. The study also found an evident breakdown of the trust of Pakistani youth in Pakistan's political and military institutions and the justice system. In the past, there have been times when the country's political system provoked much dissatisfaction among its users, possibly boosted by high-profile events like Imran Khan's arrest, which sparked protests nationwide. Users expressed their disillusionment with the political elite and judiciary, angry at perceiving them as corrupt and inefficient, and commented accordingly. This distrust in systems of political institutions is a severe problem because not only will it erode the legitimacy of the Government, but in some cases, it might lead people to avoid participation in the democratic process altogether.

Despite the negative aspects of political engagement on Facebook, the study also revealed the potential for political mobilization, activism, and hashtag movements. Platforms like Facebook have become instrumental in organizing protests, raising awareness about critical issues, and rallying support for political causes. Hashtags such as #ReleaseImranKhan and #AuratMarch exemplify the power of social media in mobilizing people around common causes. These movements, driven by emotional appeals and solidarity, have effectively generated support and influenced public opinion. They serve as a tool for individuals to express their political beliefs and demand change, demonstrating that Facebook can be a powerful tool for social and political transformation when used strategically.

5. CONCLUSION AND RECOMMENDATIONS

Facebook users contribute significantly to advancing political involvement by expressing their thoughts and commentaries on political issues. The ideas and supporting comments demonstrate that youth grasp a political issue and are more inclined towards political involvement. Thus, the research examined the correlation between expressing political views on Facebook in diverse formats and their impacts on motivating youth engagement in Pakistan politics. In conclusion, youth in Pakistan are utilizing social media extensively, but it cannot be assumed that all kinds of news posted are accurate on Facebook. However, it serves as an effective instrument for communication. Social media covers most stories that traditional or old media platforms ignore or choose not to cover because of their media strategy or authoritarian regimes. Social media pages exist for news networks; youth also find them to be the foundation of knowledge and a social media network. Social media creates voices for everyone. Further, people use social media to voice their demands and political discourse to everyone. It does not always influence youth political participation. Everything depends on the verdict that calling disagreement is dispersing. The claims made by this research strongly refute the notion that social media is a key position in political engagement and that social media has proven to be incredibly effective in politics. Most of the observations from political discourse and the analysis of youth political activity on Facebook showed a favourable attitude towards political activism. However, the study achieves a positive attitude among the youth by using social media to play a role.

1. Encourage political leaders, activists, and respected public figures on social media networking sites to be positive role models for youth.
2. Collaborate with social media platforms to create features that reward positive online behaviour within political discussions.
3. A political campaign to resonate with youth interests, values, and concerns. Engage youth in campaign planning and messaging to ensure their voices are represented.
4. Facilitate opportunities for youth to transition from online engagement to offline civic participation.
5. Create platforms and events that encourage intergenerational dialogue.
6. Advocate for policies and initiatives that combat online harassment, hate speech, and the spread of misinformation.
7. Involve youth in formulating policies that directly affect their lives and futures.

6. LIMITATIONS AND FUTURE STUDIES

This study has several limitations, including a small sample size (350 posts, 1,200 comments, 800 reactions/shares), a three-month research period, and a sole focus on Facebook, excluding platforms like Instagram, TikTok, X (Twitter), and YouTube. It also examined a limited set of themes and analyzed posts from only two political parties—PTI and PML-N—excluding other significant parties like PPP and JUI-F. Additionally, only male youth were actively engaged in political discussions, limiting insights into female participation. Future research should expand by incorporating diverse political parties and a broader range of themes, including youth perceptions of Pakistan's key institutions such as the military, judiciary, election commission, and even the cricket board. Examining multiple social media platforms can provide comparative insights into political engagement across different demographics. Further studies should also analyze how social media algorithms shape content visibility and activism and the link between online discourse and real-world political outcomes, contributing to a more comprehensive understanding of social media's influence on political participation.

Acknowledgments In the end, I would like not to thank anyone except the research participants and myself for their dedication and preservation, which have been crucial in bringing this research to fruition. This experience has been challenging and rewarding, and I am proud of what I have achieved. Thank you

Author contributions: as the sole author of this paper, I take full responsibility for all aspects of the research and writing process.

Ethical Statement: Since the data collected was from public posts and comments, individual consent was not needed, but I made sure that the data used did not include any personal identifiers that could compromise their privacy. All the data has been anonymized to protect the identities of individuals involved. Personal information has been removed. It also complied with Facebook's terms of service and community guidelines during the data collection process to further ensure the ethical use of this platform.

Competing Interests: The author declares that this work has no competing interests.

Grant/Funding information: Not Applicable

Data Availability Statement: Not Applicable

Declaration Statement of Generative AI: No AI tool has been used to draft or generate this paper.

REFERENCES

Ahmad, S., Hassan, S., Ahmad, U., & Iman, M. (2024). The Role of Social Media in Political Awareness Among Youth (A Case Study of District Malakand). *Social Science Review Archives*, *2*(2), 580-595.

Ali, S. H. (2023). Youth Population in Pakistan: Leveraging Growth for National Advancement. *Research Journal for Societal Issues*, *5*(4), 26-44. DOI:10.56976/rjsi. v5i4.161.

Bano, S. R., Bilal, M., & Azam, S. (2021). Digital Activism and Political Engagement of Pakistani Youth on Social Media: A Netnographic Exploration. *Pakistan Journal of Society, Education & Language*, *8*(1). https://pjsel.jehanf.com/index.php/journal/article/view/628.

Baumgartner, J. C., & Morris, J. S. (2010). MyFaceTube politics: Social networking websites and political engagement of young adults. *Social Science Computer Review*, *28*(1), 24-44. https://doi.org/10.1177/0894439309334325

Bhatti, M. B., & Tareen, M. K. (2021). Emerging trends in politics: Social-media and political participation of youth. *Journal of ISOSS*, *7*(2), 245-256.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative research in sport, exercise and health*, *11*(4), 589-597. https://doi.org/10.1080/2159676X.2019.1628806.

Dadas, C. (2017). Hashtag activism: The promise and risk of “attention.” In A. Vie, M. L. Gray-Rosendale, & S. Knievel (Eds.), *Social writing/social media: Publics, presentations, pedagogies* (pp. 17-36). Parlour Press. DOI: https://doi.org/10.37514/PER-B.2017.0063.2.01.

Eijaz, A. (2013). Impact of new media on dynamics of Pakistan politics. *Journal of Political Studies, 20(1), 113-128.*

Farooz, M. R. (2023). *Use of new media (Twitter and Facebook) as a tool for raising political polarization among university students in Pakistan after the 2018 general elections* [Master's thesis, İstanbul Gelişim Üniversitesi Lisansüstü Eğitim Enstitüsü]. https://hdl.handle.net/11363/6716.

Fatkin, J. M., & Lansdown, T. C. (2015). Prosocial media in action. *Computers in Human Behavior*, *48*, 581-586. https://doi.org/10.1016/j.chb.2015.01.060

Flew, T., & Iosifidis, P. (2020). Populism, globalization and social media. *International Communication Gazette*, *82*(1), 7-25. https://doi.org/10.1177/1748048519880721.

Gomez, J. (2014). Social media impact on Malaysia’s 13th general election. *Asia Pacific Media Educator*, *24*(1), 95-105. https://doi.org/10.1177/1326365X14539213

Hamza, A., Yonghong, D., & Ullah, I. (2023). Dynamics of Social Media Engagement in Pakistan: A Comprehensive Analysis of User Trends Across Platforms. *Journal of Higher Education and Development Studies (JHEDS)*, *3*(1), 1-16. https://doi.org/10.59219/jheds.03.01.29

Ida, R., Saud, M., & Mashud, M. I. (2020). Persistence of social media on political activism and engagement among Indonesian and Pakistani youths. *International Journal of Web Based Communities*, *16*(4), 378-395. https://doi.org/10.1504/IJWBC.2020.111361

Jawed, R., Lodhi, M. S., & Salim, M. (2023). Youth Engagement and Political Activism in Contemporary Pakistan: A Sociopolitical Analysis. *Pakistan Journal of Law, Analysis and Wisdom*, *2*(03), 224-243.

Kamel, Y. (2014). *News, activism and social media: Reporting the Egyptian Revolution and its aftermath by Al-Jazeera, BBC, CNN, RT and XINHUA* [Doctoral dissertation, Bournemouth University].

Kanter, M., Afifi, T., & Robbins, S. (2012). The impact of parents "friending" their young adult child on Facebook on perceptions of parental privacy invasions and parent-child relationship quality. *Journal of Communication*, *62*(5), 900-917. https://doi.org/10.1111/j.1460-2466.2012.01669.x

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, *53*(1), 59-68. https://doi.org/10.1016/j.bushor.2009.09.003

Kemp, S. (2023). *Digital 2023: Global overview report*. Datar portal. https://datareportal.com/reports/digital-2023-global-overview-report.

Khan, M. L., Ittefaq, M., Pantoja, Y. I. M., Raziq, M. M., & Malik, A. (2021). Public engagement model to analyze digital diplomacy on Twitter: A social media analytics framework. *International Journal of Communication*, *15*, 29. 1741–1769.

Masiha, S., Habiba, U., Abbas, Z., Saud, M., & Ariadi, S. (2018). Exploring the link between the use of Facebook and political participation among youth in Pakistan. *Journal of Political Sciences & Public Affairs*, *6*(1), 1-7. https://doi.org/10.4172/2332-0761.1000315.

McManimon, S. J. (2014). *Political engagement and the shifting paradigm from traditional to social media* [Doctoral dissertation, Indiana University of Pennsylvania].

Mustapha, L. K., Olufadi, O. H., Azeez, A. L., Udende, P., & Mustapha, M. L. (2023). Social media and changing political behaviours among the youth in the Kwara state of Nigeria. *Democratic Communiqué*, *31*(2). 37-65.

Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth. *Pakistan Social Sciences Review*, *3*(2), 141-153. https://doi.org/10.35484/pssr.2019(3-II)01

Orfan, S. N. (2021). Political participation of Afghan Youths on Facebook: A case study of Northeastern Afghanistan. *Cogent Social Sciences*, *7*(1), 1857916. doi:10.1080/23311886.2020.1857916

Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology*, *30*(3), 227-238. https://doi.org/10.1016/j.appdev.2008.12.010

Samya, S. S. R., Tonmoy, M. S. I., & Rabbi, M. F. (2023). A cognitive behaviour data analysis on social media use in the global south focuses on Bangladesh. *Scientific Reports*, *13*(1), 4236. https://doi.org/10.1038/s41598-023-30125-w

Shaheen, M. A. (2008). Use of social networks and students' information-seeking behaviour during political crises in Pakistan: A case study. *The international information & library review*, *40*(3), 142-147. https://doi.org/10.1016/j.iilr.2008.07.006

Shehzad, M., Yousaf, M., Mahmood, N., & Ogadimma, E. C. (2021). Impact of Facebook usage on the political participation among women in Pakistan. *Media Watch*, *12*(3), 400-421. https://doi.org/10.15655/mw_2021_v12i3_1652.

Tang, G., & Lee, F. L. (2013). Facebook use and political participation: The impact of exposure to shared political information, connections with public political actors, and network structural heterogeneity. *Social Science Computer Review*, *31*(6), 763-773. https://doi.org/10.1177/0894439313490625.

Theocharis, Y., & Lowe, W. (2016). Does Facebook increase political participation? Evidence from a field experiment. *Information, Communication & Society*, *19*(10), 1465-1486. https://doi.org/10.1080/1369118X.2015.1119871

Vaccari, C., Chadwick, A., & O'Loughlin, B. (2015). Dual screening the political: Media events, social media, and citizen engagement. *Journal of Communication*, *65*(6), 1041-1061. https://doi.org/10.1111/jcom.12187

Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N., & Lampe, C. (2011). Determining Facebook users' political participation in the 2008 election is difficult. *Cyberpsychology, behaviour, and social networking*, *14*(3), 107-114. https://doi.org/10.1089/cyber.2009.0226

Vong, M., & Hok, K. (2018). Facebooking: Youth's everyday politics in Cambodia. *South East Asia Research*, *26*(3), 219-234. https://doi.org/10.1177/0967828X17754113

Waller, L. G. (2013). Enhancing political participation in Jamaica: The use of Facebook to "cure" the problem of political talk among the Jamaican youth. *SAGE Open*, *3*(2), 2158244013486656. https://doi.org/10.1177/2158244013486656.

Vol.3, Issue.1, (2025)
International Journal of Management Thinking
https://doi.org/10.56868/ijmt.v3i1.86

A Critical Review of Quacquarelli Symonds (QS) and Business School Ranking Mechanisms: Assessment for Educational Policy Reforms

Qianyi Xu

College of Education, Guizhou Normal University, Guiyang, Guizhou 550025, China

Article Information

Article Type: Research Article

Dates:
Received: January 21, 2025
Revised: February 25,2025
Accepted: February 28, 2025
Available online: February 28, 2025

Corresponding Author:
Qianyi Xu
576269362@qq.com
https://orcid.org/0009-0006-3891-0060

ABSTRACT

Business school rankings provide valuable insights for prospective students and employers, helping them make informed decisions about education and talent acquisition. This study critically analyses the process and mechanism of the world university ranking, especially for the business school ranking. It provides a good insight for policymakers to consider and incorporate the concerns in their policies. This research introduces a novel perspective by dissecting the evolving dynamics of business school rankings, unearthing fresh insights to inform policy decisions and shape the future of business education. It also incorporated structured interviews to more detail comprehend the phenomenon of interest. The study adopted purposive sampling to select respondent and collect their insights. This study offers a unique perspective on the complicated world of business school rankings, dissecting the process and mechanisms, and brings fresh insights essential for policy considerations and the evolution of business education. The study proclaims that ranking should not only be based on observable indicators but also consider their contribution to society. It pioneers a critical analysis that benefits prospective students and employers and provides a novel framework for policymakers to address pertinent concerns in their decision-making processes.

Keywords: Critical Analysis; Business School Ranking; Quacquarelli Symonds; Educational Reforms; Educational Policies

1. INTRODUCTION

University rankings trace their origins to the early 20th century, notably with the founding of the Academic Ranking of World Universities (ARWU) by Shanghai Jiao Tong University in 2003 and the subsequent emergence of other influential rankings such as the Quacquarelli Symonds (QS) World University Rankings and Times Higher Education World University Rankings (Mok & Marginson, 2021). Initially, these rankings aimed to provide a comparative global assessment of higher education institutions, primarily based on quantitative indicators like research output, faculty quality, and citations. Their primary goal was to assist prospective students, academics, and policymakers in making informed decisions about educational institutions. Over time, these rankings evolved in complexity and methodology, incorporating diverse metrics encompassing teaching quality, internationalization, and societal impact. However, criticisms have emerged regarding their heavy reliance on quantitative data, overlooking qualitative aspects such as student satisfaction, diversity, and community engagement.

This evolution and critique underscore ongoing debates about the validity and fairness of ranking methodologies, prompting ongoing academic discussions regarding the need for more comprehensive and inclusive evaluation frameworks that better represent the multifaceted nature of higher education institutions.

Several academic institutions have taken a decisive stance against prevailing global university rankings, notably the QS World University Rankings, sparking a robust and imperative discourse among higher educational institutions (HEIs). This principled stance has gained extensive attention, resonating profoundly among educators, researchers, and policymakers worldwide (Bornmann et al., 2023; Shahjahan & Baizhanov, 2023; Nassiri-Ansari & McCoy, 2023). Central to this critique lies the excessive dependence on quantitative metrics, such as research output and financial strength, which sideline pivotal facets like teaching excellence and community engagement. This critical analysis explores the deficiencies inherent in current ranking systems, admitting the urgency for more holistic evaluation methodologies encompassing higher education institutions' multifaceted dimensions (Shahjahan & Baizhanov, 2023; Bornmann et al., 2023). Additionally, all stakeholders demand that these rankings institutions adapt and acknowledge the significance of collaborative scientific research, indicative of the evolving dynamics within academia and the necessity for a more inclusive evaluative framework (Fry et al., 2023).

The challenges are equally encountered at business schools, posing significant concerns regarding their evaluation methodologies. These rankings disproportionately prioritize metrics such as research productivity and alumni earnings, thereby favouring well-established research-oriented institutions while inadvertently sidelining the diverse contributions of institutions emphasizing teaching, entrepreneurship, or regional significance (Nassiri-Ansari & McCoy, 2023). Furthermore, a discernible bias toward certain institutions dismisses other schools' regional diversities and societal responsibilities. The reduction of evaluative criteria into a single score fails to encapsulate the intricate nature of educational institutions, potentially incentivizing strategic manipulation and diverting attention from critical educational elements (Reddy et al., 2016; Cai, 2023).

Moreover, the historical contexts in rankings perpetuate existing disparities within higher education. This oversight fails to recognize the role of business schools in fostering diversity and inclusivity (Reddy et al., 2016). The reliance on subjective surveys and self-reported data further complicates the ranking process, creating openings for manipulation and diverting focus from the fundamental educational missions of these institutions (Bornmann et al., 2023). Addressing these multifaceted concerns in ranking methodologies is pivotal to ensuring an equitable and comprehensive assessment that faithfully represents academic and business institutions' diverse landscapes and global contributions (Shahjahan & Baizhanov, 2023; Nassiri-Ansari & McCoy, 2023). Based on the above-cited discussion, this study strived to critically evaluate the limitations of current global university rankings, particularly the QS World University Rankings, in accurately assessing the diverse dimensions of higher education institutions and proposing more inclusive evaluation methodologies. So, the core question for the study was, "How can global university rankings be refined to encompass a more comprehensive assessment framework that effectively captures the multifaceted nature of higher education institutions, addressing their diverse contributions beyond quantitative metrics?

The paper introduces a novel approach to rethinking global university and business school rankings by synthesizing multifaceted criticisms and theoretical frameworks. It uniquely merges societal concerns regarding the limitations of current ranking systems with theoretical discussions centred on Reputation Theory (RT), reputation capital (RC), and contingency-based reputation (CBR).

This comprehensive analysis provides a fresh perspective, advocating for a recalibration of evaluation methodologies and urging transparency, inclusivity, and adaptability in ranking systems. By bridging the gap between social implications and theoretical constructs, this paper offers a distinctive roadmap toward a more holistic and contextually sensitive approach to assess and rank educational institutions worldwide.

2. LITERATURE REVIEW

The study of Bornmann et al. (2023); Shahjahan and Baizhanov, (2023); Nassiri-Ansari and McCoy, (2023) stated that the discussion of the academic community after some universities recently decided not to participate in international university rankings, especially the QS World University Rankings. In a time when these rankings significantly impact institutional agendas and public views, paying attention to this institution's moral position is important. The intricacies and constraints of these ranking systems have been brought to light by their concerns, which have resonated with educators, academics, and policymakers globally (Ivančević & Luković, 2018; Shahjahan & Bhangal, 2024; Cai, 2023). The excessive focus on quantitative metrics in international university rankings is a significant critique that strikes a deep chord (Bornmann et al., 2023; Daraio et al., 2015). Metrics such as research output, faculty-to-student ratios and financial resources have been granted disproportionate weight. Although research excellence is essential, an exclusive emphasis on it may unintentionally cause universities to misallocate resources, thus neglecting the equally important areas of teaching quality and community engagement (Fry et al., 2023; Millot, 2015).

According to the study Lauder et al., (2015) and Olcay and Bulu, (2017), institutions may assert that skewed prioritizing can misrepresent university performance while neglecting the complex character of higher education institutions. The call for rankings to recognize collaboration and openness in scientific research reflects the evolving landscape of academia. Collaboration within institutions and internationally is increasingly recognized as crucial for managing sophisticated global issues (Yu et al., 2016). However, most global rankings fail to account for these essential aspects adequately. The omission of such critical dimensions in ranking methodologies risks discouraging universities from embracing collaborative and open research practices, undermining the holistic evaluation of university quality (Lynch, 2015; Cai, 2023; Fry et al., 2023; Bornmann et al., 2023).

Furthermore, the critique that global rankings reduce the rich tapestry of universities into a single numerical score resonates with the academic community (Lynch, 2015; Cai, 2023). Institutions are diverse, each with unique academic programs, research domains, and missions. Attempting to encapsulate their quality in a solitary figure oversimplifies the intricacies and can be misleading (Goglio, 2016; Lynch, 2015). This stance aligns with recent research, highlighting the need for nuanced evaluation methodologies that capture universities' diverse and multifaceted contributions (Reddy et al., 2016; Cai, 2023). The decision to question the transparency and methodology of rankings is a clarion call for greater accountability in education assessment (Atici et al., 2021; Fauzi et al., 2020).

The opacity in ranking processes is a pervasive concern shared by many. The lack of disclosure regarding the precise algorithms and weightings used to calculate scores raises fundamental questions about the credibility of these rankings. It echoes the sentiment of scholars advocating for enhanced transparency to bolster the legitimacy of ranking organizations (Nguyen, 2021; Selten et al., 2020). The concerns raised by these institutions reverberate through each stage of the ranking process. From potential biases from self-reported data to the impact on institutional priorities and regional disparities, these issues demand thoughtful consideration (Huang et al., 2020; Ivančević & Luković, 2018).

As this institution champions transparency, holistic evaluation and recognition of the diverse strengths of institutions worldwide are needed. It sparks a vital conversation about the future of global university rankings. In a landscape where the pursuit of rankings can overshadow the pursuit of knowledge and societal contributions, this debate becomes both timely and necessary (Chakraborty, 2022). It is a reminder that universities should prioritize their unique missions and contributions to society rather than solely chasing higher ranks in a competitive environment (Peters, 2019; Mok & Marginson, 2021).

Shifting our focus to business school rankings conducted by ranking institutions, we find another layer of critical analysis (Guerrero et al., 2021). These rankings are influential but constrained by their overreliance on a narrow set of metrics, such as research output and alums salaries, which tend to favor well-established research-focused institutions (Lynch, 2015; Mok & Marginson, 2021). This emphasis may not adequately represent the full spectrum of contributions and impact that business schools make, especially those emphasizing teaching, entrepreneurship, or community engagement (Luca & Smith, 2015; Siemens et al., 2005). Moreover, there is a bias towards English-speaking institutions in global rankings, disadvantaging non-English-speaking schools. These rankings often fail to consider business schools' regional relevance and impact, neglecting that a school's contributions can vary significantly based on its geographic location and regional needs (Baden-Fuller & Ang, 2001).

Furthermore, these rankings often do not account for a school's social and environmental responsibility efforts, missing an opportunity to recognize the positive influence of business schools in addressing societal challenges (Chan et al., 2006; Lynch, 2015). The bias towards a limited set of quality aspects in business school rankings necessitates critical scrutiny. These rankings typically rely heavily on a select group of metrics, such as research output, faculty reputation, and alum earnings, to assess the quality and performance of business schools (Kaplan, 2018; Daraio et al., 2015). This narrow focus neglects other critical aspects of business education, such as teaching quality, innovation in curriculum, diversity and inclusion, community engagement, and the impact of business schools in addressing societal challenges (Rafols et al., 2012). This bias towards a minor set of quality dimensions can inadvertently downplay the significant contributions of schools that prioritize these underrepresented facets, potentially overlooking the well-rounded and holistic development that business education should encompass (Fauzi et al., 2020; Chan et al., 2006).

Another issue is determining a business school's relative position in ranking tables based on a single average weight. This method often employs a weighted average approach, where diverse criteria, ranging from research output to teaching quality and employability outcomes, are combined into a single score (Ryazanova et al., 2017; Bornmann et al., 2023). While this approach simplifies the ranking process, it can be inherently problematic. It assumes that the weight assigned to each criterion accurately reflects its importance, and it reduces the multidimensional nature of educational institutions to a singular number, which may not capture the complexity and diversity of these institutions (Alwi & Kitchen, 2014; Cai, 2023).

Moreover, this method can be susceptible to manipulation, where business schools may strategically prioritize specific criteria over others to inflate their rankings, potentially diverting resources away from crucial aspects of education, research, or community engagement that are not heavily weighted in the ranking formula (Baden-Fuller & Ang, 2001). As a result, schools might pursue a one-size-fits-all approach to meet ranking criteria, potentially sacrificing their unique missions and values (Agnew et al., 2016; Bornmann et al., 2023).

Furthermore, the singular ranking score may not provide prospective students, faculty, or employers with a comprehensive understanding of a business school's strengths and weaknesses. It overlooks nuances and variations within individual institutions and could lead to the undue homogenization of business education (Tourish & Willmott, 2015). Addressing another concern, omitting historical students' backgrounds in business school rankings conducted by ranking institutions raises critical issues (Cai, 2023). In order to evaluate the calibre and standing of business schools, these rankings mostly rely on contemporary indicators, such as faculty research output, alum wages, and research impact (Baden-Fuller & Ang, 2001). These factors neglect students' socioeconomic circumstances and historical context, significantly affecting learning outcomes and an industrial school's overall effect. This absence may be problematic because it neglects the crucial role that business schools play in advancing inclusion, equity, and variation (Mangematin & Baden-Fuller, 2008).

A school that actively recruits and supports students from underprivileged backgrounds or historically marginalized communities may not perform as well in metrics such as alum earnings immediately after graduation (Alwi & Kitchen, 2014; Fauzi et al.,2020). Still, it can contribute significantly to social mobility and address broader societal inequalities. Moreover, by ignoring historical student backgrounds, these rankings may inadvertently reinforce existing inequalities in business education (Luca & Smith, 2015; Kaplan, 2014). Institutions with a long history of catering to privileged student populations or having access to substantial resources may consistently rank higher, while those striving to provide opportunities for diverse and less advantaged students could be undervalued (Nguyen, 2021; Selten et al., 2020).

Study of Atici et al., (2021) provide a more holistic and fair assessment of business schools; rankings should be incorporated by measuring considering the historical context of student demographics. Schools should be given due recognition and active towards inclusivity and societal progress. This approach better reflects business schools' contributions and incentivizes efforts to promote diversity and equity in higher education. Lastly, we must scrutinize the source of indicator measurement data in business school rankings conducted by ranking institutions (Mangematin & Baden-Fuller, 2008). These rankings heavily rely on data from various sources such as surveys, institutional submissions and publicly available information, which may provide valuable insights but also introduce potential biases and limitations (Millot, 2015; Lauder et al., 2015; Alwi &Kitchen, 2014).

Respondents may not have comprehensive knowledge of all business schools worldwide, which can result in incomplete or biased evaluations (Cornelissen & Thorpe, 2002; Agnew et al., 2016). Furthermore, the self-reported nature of much of the data poses challenges. Business schools are incentivized to present themselves in the best light, potentially leading to the inflation of specific metrics (Trkman, 2019; Hall & Martin, 2019). It could skew the rankings in favour of institutions with better resources and capabilities to manipulate their data, potentially diverting focus from their core educational mission (Free et al., 2009).

The accuracy and completeness of publicly accessible data, such as scientific journals and financial reports, might differ between organizations and nations. The accuracy and comparability of these data points among business schools might be affected by differences in accounting standards and processes (Mingers, 2015). Furthermore, some organizations may be given preference over others when selecting information sources. Business schools with extensive research programs might excel in rankings that heavily weight research output, potentially overshadowing schools with different Priorities, such as teaching excellence or community engagement (Caza et al., 2015; Baden-Fuller & Ang, 2001).

2.1 Theoretical Framework

The difficulty of characterizing and operationalizing these institutions' reputations is at the heart of the discussion around business school rankings. According to Baden-Fuller and Ang (2001), reputation is the general opinion and assessment of a business school's calibre, influence, and status in academic and professional areas. Putting this complex idea into practice requires a methodical approach beyond perceptions. It calls for creating precise and open standards covering various topics, such as the calibre of instruction, research output, alum accomplishments, and employer feedback (Cornelissen & Thorpe, 2002). This operationalization is essential for generating rankings that reflect an institution's identity and value proposition in the competitive landscape of business education (Luca & Smith, 2015; Cornelissen & Thorpe, 2002).

Reputation Theory (RT) emerges as the guiding premise in this paradigm. It posits that reputation is not only a subjective judgment but a critical factor in a business school's ranking and capacity to attract students, faculty, and employers (Hall & Martin, 2019; Reddy et al., 2016). RT emphasizes the significance of reputation as an amalgamation of an institution's historical performance, the excellence of its educational programs, the significance of its research contributions, and the achievements of its alums. Verčič and Ćorić (2018) highlighted the importance of reputation in influencing the decisions of prospective students, faculty members, employers and other stakeholders.

Additionally, Reputational Capital (RC), which emphasizes upholding a positive institutional reputation and demonstrates the long-term value of a business school's reputation, emerged as a concrete outcome of related discussions (Beatty & Ritter, 1986). Besides the present time and now, the RC symbolizes prior achievements and the school's continuous commitment to excellence (Rutter et al., 2016). It is an excellent resource for attracting top academic talent, securing research funding, and forming important business connections. In essence, RC enhances a school's rating and improves its ability to provide high-quality education (Mingers & Yang, 2017). However, the debate surrounding RT is multifaceted and brings to light a critical aspect known as contingency-based reputation (CBR). According to (Mingers & Yang, 2017), RT may unintentionally promote existing universities with long histories while ignoring more recent, creative institutions that provide excellent programs but do not have a distinguished history. In response, (Chenhall, 2003; Honig, 2004) emphasized the CBR emphasizes the importance of flexibility in rankings. Rankings must be adaptable and context-specific, considering the advantages and disadvantages of any business school. It starts an important discussion about evaluating and ranking business schools while balancing the necessity for flexibility, as stressed by CBR, and the stability of reputation, as stressed by RT. Therefore, it is recommended from the contextual and theoretical disposition to make the ranking process more adaptable, flexible, and contextual.

3. METHODOLOGY

The paper is based on a two-step qualitative design. In the first phase, the study reviewed the previous literature in-depth but not limited to critical analysis of the practice of global university rankings, particularly the QS World University Rankings and business school rankings conducted by ranking institutions. It examines the concerns and criticisms various scholars and institutions raised regarding the rankings' transparency, methodology and impact. The study conducted structured interviews with the senior academicians after a thorough analysis.

Interview questions were developed and reexamined for content and face validity for the interview with the academicians and language experts to avoid duplications and anomalies. At this stage, the study adopted the snowball sampling technique based on the rationale to approach only academicians involved in the university ranking processes. Further, this technique also helped access specialized participants, limit population size, ensure relevance and depth, establish trust and rapport and enhance study validity. Almost forty (40) academicians were approached, using referrals from the interviewed professionals.

Additionally, the study adopted a purposive sampling technique and interviewed only professionals actively involved in university raking processes. However, only twenty-three (23) participated, and the others were excused due to personal and professional reasons. All the professors held PhD (Doctorate) degrees and were actively involved in educational planning and reform processes.

All professional and ethical protocols were adopted during the interviews. Prior consent was obtained from all participants, and they were approached at the nominated time. Personal and professional secrecy and confidentiality were assured during and after the interview. The questions were shared before the interview so that the participants could better respond to the questions. Similarly, after transcribing (compiling) the interview, records (notes) were shared with the respondent for confirmation. The interview lasted almost 40-45 minutes and was also audio-recorded. All the interviews were scheduled online with the ease of the respondents. This process took almost two months to collect and transcribe the interview.

The data analysis process encompassed thorough transcription of interviews followed by a methodical thematic analysis technique. The thematic analysis systematically identified and categorized recurring themes and key concepts within the interview transcripts. A meticulous coding process was achieved by organizing data segments according to predefined and emergent themes. Participant thoughts were consolidated under particular thematic themes in aggregative replies developed through iterative coding and refinement. A systematic approach was employed to improve the analysis's rigour and reliability. It also guarantees that conclusions were well-established from the participants' perspective. It aligns with the study's objective of evaluating business school rankings critically.

4. RESULTS AND ANALYSIS

4.1 Demographics Analysis

Table 1 provides demographic information about the respondents. The statistics indicate that all respondents had good experiences and qualifications, which was also a significant concern when recruiting them for the interview.

Table 1: Demographics of the Respondents

Items		Frequency	Percentage (%)
Education	PhD	23	100
Experience in HEIs	1-10 years	3	13
	11-20 years	8	35
	20-30 years	12	52
Organization	Public	13	57
	Private	10	43
Gender	Male	14	61
	Female	9	39
Position	Dean	11	48

	Associate Dean for quality and accreditations	8	35
	Head of Department	2	9
Coding for the respondents based on their experiences	FG1	F1-F3	
	FG2	F4-F11	
	FG3	F12-F23	
Total		23	

(FG – Faculty Group, F- Faculty)

The study compiled this section from the interview transcription to keep the content coherent, logical, consistent, and well-connected. All the responses are presented in this section in a holistic and compiled way, and in the discussion section, the study presents a comprehensive overview and comparison.

Regarding the methodology question, the respondents admitted that most ranking agencies are using traditional methods for ranking and excluding many meaningful aspects that need to be included. According to them (FI, F2, and F3) *"most of the ranking agencies are using traditional approaches/matrices like reputation, research output, and faculty qualifications and lack the sophistication to evaluate interdisciplinary collaborations, which are increasingly vital for solving complex real-world problems."* Others (F4-F8) added that "*their methodologies might not adequately consider the cultural nuances and regional disparities that affect educational institutions worldwide."* Similarly, some (F9-F13) faculty members pointed out that *"their methodologies often fail to capture the dynamic nature of education, innovation, and adaptability, overlooking crucial aspects of how institutions evolve and respond to changing societal needs."* They (F14-F23) further mentioned that "*their methodologies do not consider student experience, teaching quality, and the practical application of knowledge in the real world."*

For the second question regarding the methodologies and their accurate reflection of the authentic quality and contributions of institutions, the respondents (F1-F5) responded that *"The methodologies often fail to capture the qualitative aspects, such as the impact on society, community engagement, and the development of ethical leaders, thereby not fully reflecting institutional contributions."* Similarly, (F6-F13) added that *"The current methodologies might overlook the collaborative research endeavours, diverse strengths, and societal contributions that are pivotal but challenging to quantify in a standardized ranking system."* Likewise, (F14-F19) proclaimed that *"They might not be inclusive enough to accurately represent the different strengths and achievements of institutions across various regions and socioeconomic contexts."* In the same way (F20-F23) added, "*These methodologies may not adapt swiftly enough to changes in educational approaches and innovative teaching methodologies, potentially undervaluing their importance."*

Some respondents added that the ranking agencies should consider cultural and contextual factors. They (F7, F8, and F11) advised, "*There is a necessity to understand the context-specific relevance and impact of institutions, which often gets overlooked in standardized rankings."* Some (F21-F23) respondents were satisfied with the processes. However, they also advised the raking agencies to refine their processes. They proclaimed, "*While they provide a comparative analysis, there is an ongoing need to refine these methodologies to reflect the ever-evolving nature of education and its impact on society."*

Regarding the rankings' transparency, most respondents proclaimed that *"they (almost all) should openly disclose the criteria and processes involved in rankings fosters trust to enable better understanding."* They further added that *"it adds legitimacy to the ranking process. Conversely, the lack of transparency undermines trust and raises scepticism about the objectivity and fairness of the rankings."*

Similarly, they added that stakeholders face difficulty comprehending how rankings are formulated due to a lack of transparent processes. "*This lack of clarity leads to scepticism and may diminish rankings' perceived value and credibility."* Furthermore, regarding the influence on institutional priorities and regional disparities, almost all respondents believed that *"Opacity in ranking methodologies can significantly influence institutional priorities and exacerbate regional disparities."*

In the third question regarding imbalanced prioritization and representation, the academician replied, "Current ranking systems often place disproportionate emphasis on easily quantifiable metrics such as research output, faculty-to-student ratios, or international reputation." They added that the bias or imbalance in impacting metrics representation significantly impacts institutions' representation. This imbalance can disadvantage institutions that prioritize innovation or regional relevance over sheer research volume. Consequently, it might lead to underrepresentation or undervaluation of these critical aspects in the overall evaluation. Similarly, regarding the overall imbalance for a comprehensive evaluation framework, they added that "*to rectify this imbalance and create a more comprehensive evaluation framework, a multidimensional approach is essential. It involves incorporating diverse metrics that holistically capture an institution's performance.* "All of them agreed on the diversification of metrics, qualitative assessment, contextualization and regional relevance, and stakeholder involvement.

4.2 Thematic Analysis

The study reveals several recurring themes regarding the limitations, challenges, and areas of improvement in existing university and business school ranking methodologies. This analysis highlights the multifaceted challenges in assessing educational institutions comprehensively through current ranking methodologies, indicating a pressing need for more inclusive, transparent, adaptable, and holistic evaluation frameworks. Extracted themes from the interviews are presented in Table 2.

Table 2: Thematic Analysis

S.No	Themes	Explanation
1.	Inadequate Representation	The methodologies fall short in representing qualitative aspects, societal contributions, interdisciplinary collaborations, and the evolving nature of education.
2.	Lack of Holistic Evaluation	They fail to provide a holistic evaluation, overlooking crucial elements like teaching quality, innovation, community engagement, and regional relevance.
3.	Transparency and Credibility	Concerns about transparency in methodologies impact the credibility of ranking organizations, influence institutional priorities, and potentially lead to regional disparities.
4.	Imbalanced Prioritization	There is a notable bias toward certain metrics over others, which distorts the perception of institution performance and resource allocation.
5.	Dynamic Nature of Education	The need for methodologies to adapt swiftly to changes in education and society's needs is evident, emphasizing the importance of continuous enhancement.
6.	Contextual Understanding	Recognizing institutions' contextual relevance and impact is crucial for a more accurate evaluation, especially across diverse regions and socioeconomic contexts.

4.3 Implications of the study

From a societal perspective, reconsidering these ranking systems can reshape the landscape of higher education by redirecting institutional priorities. By challenging the overemphasis on quantitative metrics and advocating for a more holistic evaluation, universities and business schools can be encouraged to diversify their focus beyond research output and financial resources. Embracing this shift could foster a more balanced educational environment, recognizing the significance of teaching quality, community engagement, collaborative research, and societal impact. Consequently, this could better serve the broader community by nurturing well-rounded graduates with academic prowess, social awareness, and problem-solving skills relevant to real-world challenges.

The ongoing discourse regarding the limitations of these rankings invites a reevaluation of existing evaluation methodologies. The emphasis on Reputation Theory (RT) and the creation of Reputational Capital (RC) within educational contexts could prompt scholars and institutions to develop more comprehensive evaluation frameworks. This evolution in theoretical frameworks may inspire the formulation of adaptable and context-dependent ranking systems. Incorporating contingency-based reputation (CBR) considerations can lead to more flexible evaluations that acknowledge and celebrate the diverse strengths of educational institutions. This theoretical shift could drive researchers and educators to explore and construct more inclusive models that authentically capture the multidimensional facets of educational excellence, fostering a more nuanced understanding of institutional quality and impact.

4.4 Discussion

The study concluded that the ranking institutions should develop more comprehensive, accumulative, customized evaluation processes and procedures. It will not only decrease the anticipated biases but, at the same time, will also encourage the newly established institution to approach and get recognized (Mingers & Yang, 2017). The study also proclaims for more cohesive collaboration with the locals and industries to sort out the contextual problems and opportunities. The methodologies employed in university and business school rankings grapple with multiple shortcomings that hinder their comprehensive assessment. (Chenhall, 2003; Honig, 2004). These methodologies inadequately represent the qualitative dimensions, interdisciplinary collaborations, and evolving educational settings, creating a notable gap in reflecting academic institutions' accurate contributions and societal impacts. Moreover, their failure to offer a holistic evaluation overlooks critical elements integral to academic excellence, such as teaching quality, innovation, community engagement, and regional relevance. This lack of inclusivity results in an incomplete portrayal of the diverse strengths and contributions of universities and business schools, limiting the accuracy of their rankings (Fuller & Delorey, 2016).

Additionally, concerns regarding transparency in these methodologies significantly affect the credibility of ranking organizations, leading to doubts about their objectivity and influencing institutional priorities (Fauzi et al., 2020). The imbalanced prioritization of specific metrics over others distorts the perception of institutional performance, impacting resource allocation and potentially exacerbating regional disparities. Given the dynamic nature of education and society, there is a clear need for these methodologies to adapt swiftly to changes, emphasizing the necessity for continual enhancement (Chan et al., 2006). Recognizing the importance of contextual understanding and its impact on institutions across diverse regions and socioeconomic contexts is crucial for fostering a more accurate and inclusive evaluation framework that better represents the multifaceted contributions of academic institutions worldwide (Rafols et al., 2012).

4.5 Contribution of the Study

The study contributes significantly to theoretical and practical aspects of the discourse on business school rankings. In theoretical terms, the study introduces and expounds upon the concept of Reputation Theory (RT), emphasizing that reputation in the context of business school rankings is not just a subjective assessment but a complex amalgamation of various factors. It highlights the need for transparent and multifaceted criteria to define reputation, including education quality, research output, alum achievements, and employer feedback. Additionally, the study introduces the concept of Reputational Capital (RC), which underscores the enduring benefits of maintaining a positive institutional image, such as attracting top talent and securing research funding. Furthermore, the study brings attention to Contingency-Based Reputation (CBR), which argues for flexibility and context-awareness in rankings, recognizing that newer, innovative schools may offer outstanding programs but lack established reputations. These theoretical contributions enrich our understanding of the multifaceted nature of reputation and the balance between stability and adaptability in rankings.

On a practical level, the study advocates for greater transparency and accountability in ranking methodologies, data sources, and weighting schemes. This practical recommendation promotes the credibility and legitimacy of ranking organizations by addressing concerns about the potential for data manipulation. Moreover, the study emphasizes the importance of inclusivity and diversity in rankings by suggesting that historical student backgrounds be considered. This practical contribution encourages the recognition of schools actively promoting diversity and social mobility, thereby fostering fairness in education. Furthermore, the study calls for a more balanced assessment of business schools, recommending the inclusion of diverse dimensions such as teaching quality, innovation, diversity, community engagement, and societal impact in rankings.

Lastly, the study underscores the need for quality data verification to ensure the accuracy and reliability of self-reported data used in rankings. Collectively, these practical recommendations aim to enhance the fairness, accuracy, and relevance of business school rankings in the competitive landscape of higher education.

5. CONCLUSION AND RECOMMENDATIONS

In conclusion, the study based on the ranking of academic and business schools emphasizes the need for critical examination and improvement, significantly influencing institutional decisions and public perceptions, and their limitations and biases must be addressed. Whether in the context of global university rankings or business school rankings, there is a compelling case for greater inclusivity, transparency, and consideration of diverse factors that genuinely reflect educational institutions' multifaceted contributions and missions. The ongoing discourse challenges us to ensure that our ranking systems align with the values of education, diversity, equity, and societal progress rather than perpetuating narrow and potentially misleading assessments. Moreover, to address these concerns, it is imperative for rankings conducted by ranking institutions to transparently disclose their data sources, methodologies, and weighting schemes. Additionally, more significant efforts should be made to verify the accuracy and reliability of self-reported data. Emphasizing a more comprehensive and diverse set of indicators, including qualitative assessments of institutional missions and impacts, can contribute to a more accurate and equitable representation of the diverse landscape of business education.

Author contributions: All author'(s) solely contribute in the research study.
Ethical Statement: The study was conducted with verbal consent obtained from the participating education experts prior to the interviews. While written consent was not acquired, participants were fully informed about the purpose, scope, and voluntary nature of the study. The research adheres to ethical guidelines, ensuring confidentiality and anonymity of responses.
Competing Interests: The author declares that this work has no competing interests.
Grant/Funding information: The author declared that no grants supported this work.
Data Availability Statement: The associated data is available upon request from the corresponding author.
Declaration Statement of Generative AI: The author(s) of this work declared of not using AI-expect language editing program Grammarly.

REFERENCES

Agnew, S., Cameron-Agnew, T., Lau, A., & Walker, S. (2016). What business school characteristics are correlated with more favourable National Student Survey (NSS) rankings? *The International Journal of Management Education*, *14*(3), 219-227. https://doi.org/10.1016/j.ijme.2016.05.001

Alwi, S. F. S., & Kitchen, P. J. (2014). Projecting corporate brand image and behavioral response in business schools: cognitive or affective brand attributes? *Journal of Business research*, *67*(11), 2324-2336. https://doi.org/10.1016/j.jbusres.2014.06.020

Atici, K. B., Yasayacak, G., Yildiz, Y., & Ulucan, A. (2021). Green University and academic performance: An empirical study on UI GreenMetric and World University Rankings. *Journal of Cleaner Production*, *291*, 125289. https://doi.org/10.1016/j.jclepro.2020.125289

Baden-Fuller, C., & Ang, S. H. (2001). Building reputations: The role of alliances in the European business school scene. *Long Range Planning*, *34*(6), 741-755. https://doi.org/10.1016/S0024-6301(01)00088-7

Beatty, R. P., & Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of financial economics*, *15*(1-2), 213-232. https://doi.org/10.1016/0304-405X(86)90055-3

Bornmann, L., Gralka, S., de Moya Anegón, F., & Wohlrabe, K. (2023). Efficiency of universities and research-focused institutions worldwide: The introduction of a new input indicator reflecting institutional staff numbers. *Journal of Informetrics*, *17*(2), 101400. https://doi.org/10.1016/j.joi.2023.101400

Cai, Y. (2023). Towards a new model of EU-China innovation cooperation: Bridging missing links between international university collaboration and international industry collaboration. *Technovation*, *119*, 102553. https://doi.org/10.1016/j.technovation.2022.102553

Caza, A., Brower, H. H., & Wayne, J. H. (2015). Effects of a holistic, experiential curriculum on business students' satisfaction and career confidence. *The International Journal of Management Education*, *13*(1), 75-83. https://doi.org/10.1016/j.ijme.2015.01.006

Chakraborty, S. (2022). TOPSIS and Modified TOPSIS: A comparative analysis. *Decision Analytics Journal*, *2*, 100021. https://doi.org/10.1016/j.dajour.2021.100021

Chan, K. C., Fung, H. G., & Leung, W. K. (2006). International business research: Trends and school rankings. *International business review*, *15*(4), 317-338. https://doi.org/10.1016/j.ibusrev.2006.04.002

Chenhall, R. H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, organizations and society*, *28*(2-3), 127-168. https://doi.org/10.1016/S0361-3682(01)00027-7

Cornelissen, J., & Thorpe, R. (2002). Measuring a Business School's Reputation:: Perspectives, Problems and Prospects. *European Management Journal*, *20*(2), 172-178. https://doi.org/10.1016/S0263-2373(02)00027-0

Daraio, C., Bonaccorsi, A., & Simar, L. (2015). Rankings and university performance: A conditional multidimensional approach. *European journal of operational research*, *244*(3), 918-930. https://doi.org/10.1016/j.ejor.2015.02.005

Fauzi, M. A., Tan, C. N. L., Daud, M., & Awalludin, M. M. N. (2020). University rankings: A review of methodological flaws. *Issues in Educational Research*, *30*(1), 79-96.

Free, C., Salterio, S. E., & Shearer, T. (2009). The construction of auditability: MBA rankings and assurance in practice. *Accounting, Organizations and society*, *34*(1), 119-140. https://doi.org/10.1016/j.aos.2008.02.003

Fry, C. V., Lynham, J., & Tran, S. (2023). Ranking researchers: evidence from Indonesia. *Research Policy*, *52*(5), 104753. https://doi.org/10.1016/j.respol.2023.104753

Fuller, M. A., & Delorey, R. (2016). Making the choice: University and program selection factors for undergraduate management education in Maritime Canada. *The International Journal of Management Education*, *14*(2), 176-186. https://doi.org/10.1016/j.ijme.2016.04.002

Goglio, V. (2016). One size fits all? A different perspective on university rankings. *Journal of Higher Education Policy and Management*, *38*(2), 212-226. https://doi.org/10.1080/1360080X.2016.1150553

Guerrero, M., Heaton, S., & Urbano, D. (2021). Building universities' intrapreneurial capabilities in the digital era: The role and impacts of Massive Open Online Courses (MOOCs). *Technovation*, *99*, 102139. https://doi.org/10.1016/j.technovation.2020.102139

Hall, J., & Martin, B. R. (2019). Towards a taxonomy of research misconduct: The case of business school research. *Research Policy*, *48*(2), 414-427. https://doi.org/10.1016/j.respol.2018.03.006

Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of management learning & education*, *3*(3), 258-273. https://doi.org/10.5465/amle.2004.14242112

Huang, C. K., Neylon, C., Brookes-Kenworthy, C., Hosking, R., Montgomery, L., Wilson, K., & Ozaygen, A. (2020). Comparison of bibliographic data sources: Implications for the robustness of university rankings. *Quantitative Science Studies*, *1*(2), 445-478. https://doi.org/10.1162/qss_a_00031

Ivančević, V., & Luković, I. (2018). National university rankings based on open data: a case study from Serbia. *Procedia Computer Science*, *126*, 1516-1525. https://doi.org/10.1016/j.procs.2018.08.124

Kaplan, A. (2014). European management and European business schools: Insights from the history of business schools. *European Management Journal*, *32*(4), 529-534. https://doi.org/10.1016/j.emj.2014.03.006

Kaplan, A. (2018). A school is "a building that has four walls… with tomorrow inside": Toward the reinvention of the business school. *Business Horizons*, *61*(4), 599-608. https://doi.org/10.1016/j.bushor.2018.03.010

Lauder, A., Sari, R. F., Suwartha, N., & Tjahjono, G. (2015). Critical review of a global campus sustainability ranking: GreenMetric. *Journal of Cleaner Production*, *108*, 852-863. https://doi.org/10.1016/j.jclepro.2015.02.080

Luca, M., & Smith, J. (2015). Strategic disclosure: The case of business school rankings. *Journal of Economic Behavior & Organization*, *112*, 17-25. https://doi.org/10.1016/j.jebo.2014.12.023

Lynch, K. (2015). Control by numbers: New managerialism and ranking in higher education. *Critical studies in education*, *56*(2), 190-207. https://doi.org/10.1080/17508487.2014.949811

Mangematin, V., & Baden-Fuller, C. (2008). Global contests in the production of business knowledge: Regional centres and individual business schools. *Long Range Planning*, *41*(1), 117-139. https://doi.org/10.1016/j.lrp.2007.11.005

Millot, B. (2015). International rankings: Universities vs. higher education systems. *International journal of educational development*, *40*, 156-165. https://doi.org/10.1016/j.ijedudev.2014.10.004

Mingers, J. (2015). Helping business schools engage with real problems: The contribution of critical realism and systems thinking. *European Journal of Operational Research*, *242*(1), 316-331. https://doi.org/10.1016/j.ejor.2014.10.058

Mingers, J., & Yang, L. (2017). Evaluating journal quality: A review of journal citation indicators and ranking in business and management. *European journal of operational research*, *257*(1), 323-337. https://doi.org/10.1016/j.ejor.2016.07.058

Mok, K. H., & Marginson, S. (2021). Massification, diversification and internationalization of higher education in China: Critical reflections of developments in the last two decades. *International Journal of Educational Development*, *84*, 102405. https://doi.org/10.1016/j.ijedudev.2021.102405

Nassiri-Ansari, T., & McCoy, D. (2023). World-class universities? Interrogating the biases and coloniality of global university rankings. http://dx.doi.org/10.37941/PB/2023/1

Nguyen, N. T. (2021). A study on satisfaction of users towards learning management system at International University–Vietnam National University HCMC. *Asia Pacific Management Review*, *26*(4), 186-196. https://doi.org/10.1016/j.apmrv.2021.02.001

Olcay, G. A., & Bulu, M. (2017). Is measuring the knowledge creation of universities possible?: A review of university rankings. *Technological Forecasting and Social Change*, *123*, 153-160. https://doi.org/10.1016/j.techfore.2016.03.029

Peters, M. A. (2019). Global university rankings: Metrics, performance, governance. *Educational Philosophy and Theory*, *51*(1), 5-13. https://doi.org/10.1080/00131857.2017.1381472

Rafols, I., Leydesdorff, L., O'Hare, A., Nightingale, P., & Stirling, A. (2012). How journal rankings can suppress interdisciplinary research: A comparison between innovation studies and business & management. *Research policy*, *41*(7), 1262-1282. https://doi.org/10.1016/j.respol.2012.03.015

Reddy, K. S., Xie, E., & Tang, Q. (2016). Higher education, high-impact research, and world university rankings: A case of India and comparison with China. *Pacific Science Review B: Humanities and Social Sciences*, *2*(1), 1-21. https://doi.org/10.1016/j.psrb.2016.09.004

Rutter, R., Roper, S., & Lettice, F. (2016). Social media interaction, the university brand and recruitment performance. *Journal of Business Research*, *69*(8), 3096-3104. https://doi.org/10.1016/j.jbusres.2016.01.025

Ryazanova, O., McNamara, P., & Aguinis, H. (2017). Research performance as a quality signal in international labor markets: Visibility of business schools worldwide through a global research performance system. *Journal of World Business*, *52*(6), 831-841. https://doi.org/10.1016/j.jwb.2017.09.003

Selten, F., Neylon, C., Huang, C. K., & Groth, P. (2020). A longitudinal analysis of university rankings. *Quantitative Science Studies*, *1*(3), 1109-1135. https://doi.org/10.1162/qss_a_00052

Shahjahan, R. A., & Baizhanov, S. (2023). Global university rankings and geopolitics of knowledge. *International Encyclopedia of Education*, *2*, 1-25.

Shahjahan, R. A., & Bhangal, N. K. (2024). Cultural studies and university rankings: a case study of Quacquarelli Symonds (QS). *Scandinavian Journal of Educational Research*, *68*(1), 53-66. https://doi.org/10.1080/00313831.2023.2212016

Siemens, J. C., Burton, S., Jensen, T., & Mendoza, N. A. (2005). An examination of the relationship between research productivity in prestigious business journals and popular press business school rankings. *Journal of Business Research*, *58*(4), 467-476. https://doi.org/10.1016/j.jbusres.2003.07.003

Tourish, D., & Willmott, H. (2015). In defiance of folly: Journal rankings, mindless measures and the ABS guide. *Critical Perspectives on Accounting*, *26*, 37-46. https://doi.org/10.1016/j.cpa.2014.02.004

Trkman, P. (2019). Value proposition of business schools: More than meets the eye. *The international journal of management education*, *17*(3), 100310. https://doi.org/10.1016/j.ijme.2019.100310

Verčič, A. T., & Ćorić, D. S. (2018). The relationship between reputation, employer branding and corporate social responsibility. *Public Relations Review*, *44*(4), 444-452. https://doi.org/10.1016/j.pubrev.2018.06.005

Yu, M. C., Wu, Y. C. J., Alhalabi, W., Kao, H. Y., & Wu, W. H. (2016). ResearchGate: An effective altmetric indicator for active researchers? *Computers in human behavior*, *55*, 1001-1006. https://doi.org/10.1016/j.chb.2015.11.007

Appendix-A

Interviews Questions

Perspectives on Ranking Methodologies:

1. How do you perceive the existing methodologies used for university and business school rankings?
2. Do these methodologies accurately reflect the authentic quality and contributions of institutions?

Sub-questions:

- What are the critical elements or aspects you believe are inadequately represented or overlooked in current ranking systems?
- How do these limitations impact the holistic evaluation of educational institutions, especially in the context of collaborative research, diverse strengths, and societal contributions?

Transparency and Accountability in Rankings:

1. What are your views on the transparency and disclosure of methodologies used in university and business school rankings?
2. How important is transparency in bolstering the credibility of ranking organizations?

Sub-questions:

- What challenges or concerns arise due to the lack of transparent ranking processes?
- How does the opacity in ranking methodologies influence institutional priorities and regional disparities?

Imbalanced Prioritization and Representation:

1. How do the current ranking systems prioritize specific metrics over others, potentially distorting the overall perception of university or business school performance?

Sub-questions:

- How do you see bias or imbalance in metrics impacting the representation of institutions, especially regarding teaching quality, innovation, community engagement, or regional relevance?
- What measures could be taken to address this imbalance and create a more comprehensive evaluation framework?

Vol.3, Issue.1, (2025)
International Journal of Management Thinking
https://doi.org/10.56868/ijmt.v3i1.87

Dimensions and Determinants of Psychological Adaptation Among Chinese College Students

Yang Xia[1], Mohd Muslim Bin Md Zalli[1*]

[1]Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI), Tanjong Malim, 35900 , Perak, Malaysia.

Article Information

Article Type: Review Article

Dates:
Received: February 27, 2025
Revised: April 01, 2025
Accepted: April 09, 2025
Available online: April 10, 2025

Corresponding Author:
Mohd Muslim Bin Md Zalli
muslim@fpm.upsi.edu.my
ORCID: 0000-0003-0908-686X

ABSTRACT

Psychological adaptation is recognized as a vital regulator and indicator of mental well-being. In recent years, mental crises among college students in China have primarily been attributed to psychological maladaptation. Therefore, this study aims to explore the different dimensions and determinants of psychological adaptation among Chinese college students. A narrative-style systematic review was undertaken in accordance with the Prisma statement's principles. The research sample consisted of an online database published in the time series (2015-2024) about college students' general and psychological adaptation. The analytical results indicate that psychological adaptation encompasses five prevalent dimensions: academic adaptation, environmental adaptation, interpersonal adaptation, self-adaptation, and emotional adaptation. It was noted that the factors which affect psychology can be categorized intrinsically at two levels: (a) internal and external factors; (b) micro factors, meso factors, and macro factors. The study concludes that college students' psychological adaptation is a multifaceted subject that needs to be considered from multiple perspectives for better understanding. Self-efficacy, also known as self-regulation, is a crucial and fundamental element that influences psychological adaptation. On the other hand, social support as an external factor has a significant effect at multiple levels including the micro, meso, and macro levels. The thorough evaluation of the literature provided us with vast and interlinked approaches for the psychological adaptation analysis of an individual or college student. Different researchers have adopted various approaches with the same purpose of achieving psychological health integrated into an individual's life.

Keywords: Psychological Adaptation; Mental Health; College Students; Literature Analysis; Dimensions; Determinants.

1. INTRODUCTION

Assessing the situation both at the domestic level (i.e., within a country) and internationally, the most frequent concern regarding college students is their well-being. The unemphatic role and lack of empathy by the stakeholders delay the disclosure and handling of the problem. On the other hand, the body of researchers who eventually assess and evaluate to resume an eclectic approach to heed the problem is embedded into the phase of sterility owing to the affected lack of development that ought to proceed with the consensus ushered in. The matter at hand escalates in its magnitude. It can be inferred owing to the fact that college years align with a crucial phase of development during which numerous prevalent mental diseases are likely to manifest (Jones et al., 2022). The challenges of transition into a new phase, along with the culminating pressure that comes with it, assume a definite role in some students' lives. Researchers found that it is due to several causes, such as institutional, intellectual, social, and emotional pressures, that young people are facing challenges in staying in the higher education system (Araque et al., 2009; Ethington, 1990; Tinto, 1975; Donado et al., 2021). Based on a socioeconomic study conducted by Fonaprace (2014), it was found that 58.36% of federal university students reported experiencing anxiety, 44.72% reported feeling apathetic or lacking motivation, 32.57% reported suffering from insomnia or other serious sleep disorders, 22.55% felt abandoned or experienced despair, and 21.29% expressed feelings of loneliness. The prevalent condition is subsequently nurtured by the inability or inefficacy to tackle it. Furthermore, there are documented instances of individuals experiencing eating disorders, fear and panic, death anxiety, and suicidal ideation (Sahao & Kienen, 2021).

It is no better for Chinese college students, and the problem is exacerbated by the vast student population. First-year college students, for example, in China, frequently struggle to adjust to college life. As shown in Table 1, a survey done at a college in Beijing found that the vast majority of first-year college students face multiple external and internal-adjustment issues as they start their college studies (Ju et al., 2020).

Table 1: Difficulties Encountered by New Students when Enrolling in College (Ju et al., 2020)

Difficulty	Proportion
Adapt to new living habits and environments	55.33%
Pressure of the course	49.67%
Anxiety, fear, and depression related to school and life	45%
Thoughtfulness, loneliness	29.33%
Post-traumatic stress disorder caused by course content	6%
Drug therapy	0.67%
Other	2.33%
No difficulty	15.33%

In terms of the psychological adaptation of college students, it is worth mentioning that in recent years the majority of psychiatric crises encountered by college students in China have been associated with psychological maladaptation (Ren, 2022). Psychological adaptation serves as the mental readiness of students to engage in university studies, i.e., their capacity to handle the academic demands and cope with the stressors that may develop throughout their studies (Nugmanova et al., 2022). It will significantly influence the adjustment and psychological well-being of college students. Recent research has uncovered a troubling pattern. There has been a consistent rise in the incidents of suspensions, dropouts, severe mental disorders, suicides, and killings linked to psychological maladjustment among college students over time (Li & Zhou, 2017). It highlights the need to contemplate significant intervention.

Psychological adaptation facilitates the conversion of negative emotions into more positive ones for individuals (Oakes et al., 2016), facilitating students' comprehension of their own and others' cognitive and emotional states, hence reducing the occurrence of psychological distress (Hafida et al., 2022).

Psychological distress is the precursor that sabotages normal day-to-day life and daily activities. In light of this, addressing the psychological issues of Chinese college students must be commenced with their psychological adaptation. That is to say, the issue of enhancing the mental well-being of college students can be effectively tackled through an emphasis on their psychological adaptation (Ren, 2022).

However, "psychological adaptation" has typically been examined by cross-cultural psychologists (Doucerain, 2019), who have concentrated on the cultural adaptation of migrants and the adaptability to traumatic experiences (Li, 2021), rather than college students. In China, although scholars have shown interest in the psychological adaptation of college students, research has predominantly remained at the theoretical level, lacking empirical research and support. In summary, the psychological well-being of students and their adaptation to college life have always been subjects of research but the literature still reveals significant gaps (Sahao & Kienen, 2021). Efforts ought to be directed toward fortifying screening and intervention protocols for psychological symptoms, especially targeting college students in the era following COVID-19 (Wang et al., 2022). There is a need for additional theoretical and empirical research to better comprehend the psychological adaptation of college students.

Hence, this study aims to enhance knowledge and foster a more thorough understanding of psychological adaptation by organizing and summarizing the scientific literature on the mental health and psychological adaptation of Chinese college students. To achieve this, the study focuses on the following research issues.

1. What is the research status of college students' psychological adaptation in China?

2. How is psychological adaptation tested in college students, what are the most often utilized assessment dimensions?

3. What factors influence the psychological adaptation of college students in existing studies?

2. METHODS

In response to the research questions and objectives, a systematic review of the literature was conducted by researchers. This methodology seeks to systematically identify determiners by scrutinizing a maximum number of research materials on this topic, leading to a thorough, critical, and all-encompassing investigation of the chosen material. For a comprehensive understanding of the situation concerning the psychological adaptation of college students, published studies were obtained from a variety of channels.

The research was conducted utilizing electronic databases like CNKI, Scopus, ProQuest, Web of Science, Google Scholar, and ScienceDirect. The following descriptors were utilized throughout the global databases: ("university student" or "college student") and ("psychological adaptation" or "psychological adjustment," likewise "mental adaptation" or "mental adjustment") and ("China" or "Chinese"). In the national database, the advanced search engine is optimized with keywords such as "college/ university students". Other keywords like "psychological/ mental adaptation (or adjustment)" and "mental/ psychological health" were used. Furthermore, to avoid missing out on significant data, the most searched keywords were sought and probed falling in the database up to October 2023. Finally, the references of the selected papers were cross-examined for additional literature relevance to the topic but were not retrieved from the search engine database. This methodology was adopted to provide the most thorough and comprehensive data that will be analyzed for this research.

The exclusion criteria used in research are as follows:
(1) Studies that do not focus on college/university students;
(2) Research that does not examine psychological(mental) adaptation(adjustment) or mental(psychological) health;
(3) Research papers published prior to 2014;
(4) Studies that investigate the validity and reliability of measurement tools;
(5) Research conducted in languages other than English or Chinese.

The search for relevant literature was carried out in two parts. In the first phase (initiated on March 2023), 263 pieces of relevant literature were selected for evaluation. The second phase of the literature probing took place in October with an updated search, resulting in the selection of 35 pieces of literature. After conducting a thorough examination of the title, keywords, and abstract, simultaneously taking into account the subject matter of this study, the exclusion criteria, a total of 25 pieces of literature were ultimately chosen. These include 20 empirical studies and 5 theoretical studies in all. The precise process is illustrated in Figure 1.

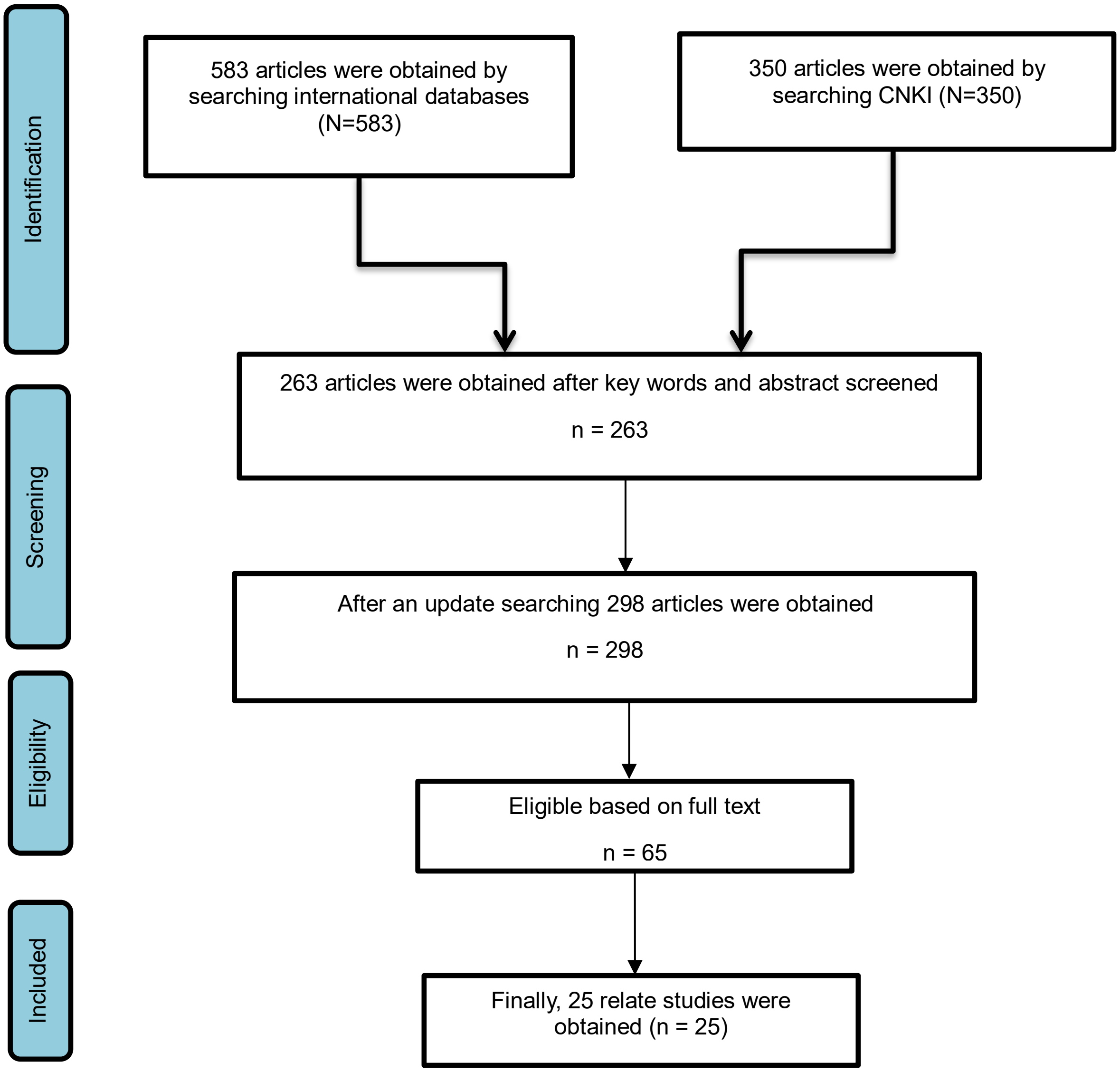

Figure 1: Flowchart of Systematic Review Process (Source: The Authors)

All the chosen publications are classified into two distinct categories: empirical literature and theoretical literature. The empirical literature offers the following information: (1) The college age is a crucial stage of development for individuals, necessitating adjustment and adaptation. (2) Students at the higher education level are susceptible to emotional, academic, and psychological issues that require careful consideration. (3) Factors that either facilitate or hinder students' adaptation to higher education. (4) The adaptation of students and the influencing factors within specific contextual circumstances. (5) Diverse characteristics of adaptation among various groups of college students. (6) The adaptation and testing of questionnaires. In contrast, the theoretical literature presents the following: (1) the present status of psychological adaptation and mental health among college students; (2) the dimensions of measurement for psychological adaptation and mental health among college students; (3) an analysis of the causes of psychological adaptation; and (4) recommendations and countermeasures for psychological adaptation and mental health.

Furthermore, to enhance the process of recording and extracting literature information, a literature table was established. Table 2 includes part of the following details: (1) author, year, and subject; (2) research design, research objects, sample size, research methods, and findings; (3) article number, key information from the abstract, and crucial details from the literature. Additionally, to gain a comprehensive understanding of the research on college students' psychological adaptation, the VOSviewer was utilized to analyze the literature search results in the Scopus database and the WordArt tool was employed to assess the influential aspects in the 25 selected literature sources. The Mendeley Document Management software was employed for document storage and classification, ensuring easy access.

3. RESULTS AND ANALYSIS

3.1 Research Status of Psychological Adaptation in China

The literature analysis reveals a notable research gap in the psychological adaptation of college students. In general, the following characteristics can be identified: (1) The age distribution is relatively homogeneous, with a predominant concentration around the age of 20, which is directly influenced by the education system in China. Chinese college students exhibit more distinct group characteristics compared to college students in Western countries. This is evident in the higher concentration of age groups, typically ranging from 18 to 24 years old (Chen, Shan & Tian, 2011). (2) There is a need for more research that specifically focuses on the psychological adaptation of college students. By conducting a search of the literature from the past five years using the keyword "psychological adaptation" and analyzing the data obtained from the Scopus database through the VOSviewer software, as in figure 2, it is evident that the existing research does not primarily address college students or universities. Instead, it primarily focuses on topics such as mental health, Covid-19, coping strategies, epidemics, stress, social support, cancer, and psychological stress.

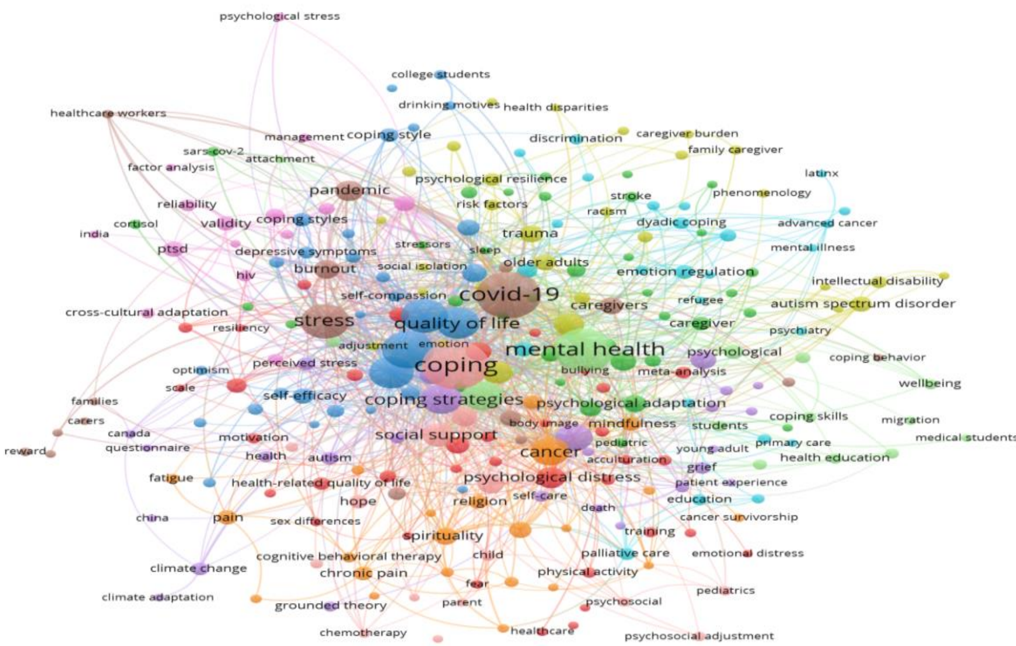

Figure 2: Keyword Map on "Psychological adaptation" (Source: The Authors)

Researchers affirm the connection between psychological adaptation and health, highlighting its significant impact during crises and stressful situations. Studies have shown that when individuals face similar stressors, the strength of psychological adaptability plays a crucial role in affecting mental health（Zhang et al.,2017). Therefore, it needs to be observed that greater emphasis should be placed on the adaptation of college students, particularly their psychological adaptation. Further analysis of the literature selected for this study such as Zhang & Li (2022) and Zhang et al. (2017) can be seen that some of the literature on psychological adaptation is intertwined with the examination of cultural adaptation, which explores psychological adaptation during the process of cultural adaptation. This also confirms Doucerain's (2019) view that psychological adaptation "has typically been examined by cross-cultural psychologists" to some extent. Besides, there are certain investigations that examine the psychological adaptation of college students, which are integrated into the broader research of their adjustment to school and mental well-being. It is worth noting that interest in research on psychological adaptation of college students in China is growing, but more about theoretical literature. Ren(2022) and Fu and Ma (2018) did some notable research providing us with theoretical literature. The particular characteristics and conditions will be elaborated in subsequent sections. In terms of the research cycle, a majority of studies conducted are cross-sectional, meaning that they measure psychological adaptation and its linked features using questionnaires or scales. Only 12% of the 25 publications selected for this study utilized longitudinal investigations. Worth-noting in this regard are the works of Zhang et al. (2022) and Li (2022).

Furthermore, in terms of research methodology, there is a strong focus on theoretical discussion and analysis as exemplified by Ju, Zhang and Chen (2020), Chen, J. (2019), Ren (2022), Fu and Ma (2018), and Li et al. (2021). Thus, in the process of choosing literature, this study chooses as many empirical research papers as it can. Regarding the methodologies generally employed in empirical research, the primary emphasis is on descriptive analysis, T-test, and correlation analysis. Among these, descriptive analysis is the most frequently utilized. It is to be noted that descriptive analysis is most favored by Zhang et al. (2017), Niu et al. (2022), Ning and Shi (2023), Ju, Zhang and Chen (2020), Chen (2019) and Li and Chen, (2021). Table 2 is given for more fundamental details.

Table 2: Characteristics of the Articles Analyzed Regarding the Research Design, Instrument, Sample Size and Data Analysis Method

Code	Research Design	Instruments	Research Population	Age	Sample Size	Data Analysis Method
Article1 Lin, W. (2022).	Quantitative Scales	China College Student Adjustment Scale (CCSAS)	Vocational students of Zhejiang Economic Vocational and Technical College	–	500	Correlation analysis, structural equation model
Article2 Jiao, T. M., Yu, W. J., & Niu, Y. B. (2019).	Quantitative Scales	Symptom checklist-90 (SCL-90), China College Student Adjustment Scale (CCSAS)	Nursing students enrolled from 2015 to 2017 in Yanbian University and Beihua University;	M=20.56 ±1.21	583	Variance analysis, correlation analysis, regression analysis
Article3 Zhang, H. Y., & Li, M. S. (2022).	Mixed-method Research	Zung Self-appraisal Depression RatingScale and Zhu's Tree-Dimension Adaptation Scales	SISs from a top Chinese university	M=20.5	155	Descriptive analysis, analysis of variance, correlation analysis
Article4 Chen, J. Y., & Tu, C. C. (2019).	Quantitative Scales	College Students' Learning Adaptation Scale, teacher support scale, Chinese version of the Mental Hardiness Scale	A kindergarten teacher's college in Changde	M=16.13	1148	Confirmatory factor analysis, correlation analysis, regulatory model analysis and non-parametric percentile test
Article5 Zhu et al., (2020).	Quantitative Scales	SCL-90（Symptom Checklist 90）	4 majors in School of Computer Science(Wuhan Donghu University).	–	278	T-test

Article6 Baohua Yu, Anita S. Mak & Peter Bodycott (2021)	Quantitative Scales	Epidemiologic Studies-Depressed Mood Scale (CES-D), an adapted version of Cemalcilar and Falbo's (2008) 12-item scale, Mak and Kim's (2011) adaptation of Majer's (2009) Beliefs in Educational Success Test, Eight-item Quantity of Contact Scale, Acculturative Stress Scale, Perceived social support Scale	Chinese students studying in universities in Hong Kong	33.4% were aged below 20 years, 52.6% between 21 and 25 years	2201	Descriptive statistics, intercorrelations, regression analyses
Article7 Bi, D. D., & Li, X. Y. (2021).	Quantitative Scales	Acceptance and ActionQuestionnaire-II (AAQ-II), Cognitive Fusion Questionnaire (CFQ), a 60-item scale developed by Fang et al. (2005), Index of Well-Being(IWB)	Participants from a Chinese vocational college	M=18.80	644	Latent profile analysis (LPA), analysis of variance, chi-square tests
Article8 Li, J. B. (2022).	Quantitative Scales	Teacher–Student Relationships Questionnaire, Student Adaptation to College Questionnaire	Chinese freshmen in two colleges in Guangzhou	M = 18.72	1578	Descriptive statistics, bivariate correlation analyses, main analyses, RI-CLPM model
Article9 Fu et al., (2020)	Quantitative Scales	The Adaptability Questionnaire of Freshmen (SACQ), Social Support Scale, The Adaptability Questionnaire of Freshmen (SACQ),	College students in Tangshan North China University of science and technology and Tangshan Normal University;	–	450	Descriptive statistics analysis, single factor analysis of variance, correlation analysis and structural equation model
Article10 Zhu et al., (2023)	Mixed-method Research	Self-compiled based on semi structured interviews and existing questionnaires	International colleges of 300 universities	Mainly under 30 years old, accounting for 81%	2540	Independent-sample t-test, homogeneity test, one-way analysis of variance, principal Component Analysis, structural equation modeling
Article11 Xu, C., & Tu, C. C. (2023).	Quantitative Scales	Learning adaptation scale, Peer Attachment Scale, Learning Conformity Behavior Scale	College students in Hengyang	–	650	Descriptive analysis, reliability and validity analysis, path analysis, and structural equation modeling

Article12 Sun, L., Wang, K. X., & Dong, W. J. (2022).	Quantitative Scales	Depression Scale, UCLA the Loneliness Scale, Self-rating anxiety scale, Self-esteem scale	The students of Hubei Second Normal University	–	443	Descriptive statistics, independent sample t test, Pearson correlation analysis, factor analysis, structural equation model
Article13 Huang, C. L., Zhao, X. C., & Cheng, L. N. (2017).	Quantitative Scales	Student adaptation scale and coping style questionnaire	A comprehensive university,	–	229	t-test, F-test and correlation analysis
Article14 Qin et al., (2022)	Quantitative Scales	Psychological resilience scale of college students, Adolescent Adap Fitness Scale	College students of a certain university	–	337	Comparison of differences, analysis of variance, correlation analysis
Article15 Wang, X. J., Zu, B. C., & Xue, L. M. (2017).	Quantitative Scales	Connor— Davidson resilience scale (CD— RISC), China College Student Adjustment Scale (CCSAS) , General Wellbeing Schedule (GWB)	A comprehensive university in Changsha, Hunan province	–	567	Independent sample T-test, correlation analysis, regression score analysis
Article16Zhang, X. L, Zhao, M. L., & Xie, X. C. (2017).	Quantitative Questionnaires	The questionnaire was designed as 20 single choices, which were divided into two aspects: language learning and cultural customs	Sri Lankan students' in Chongqing Normal University	M=21.5	80	Descriptive analysis
Article17 Li, J., Xue, E., Wei, Y., & Guo, Y. (2023).	Quantitative Scales	Learning adaptability scale	Overseas students studying at the undergraduate level at B University	19 and 23 years old	4660	Reliability and validity Test, model validation analysis, path analysis
Article18 Niu, H., Ren, S., & Li, S. (2022).	Quantitative Scales	The College Student Adaptability Inventory (CSAI)	Engineering undergraduate university in the city of Qingdao, in Shandong Province	M=18.21	5818	T-tests and correlation analysis
Article19 Ning, Q. L., & Shi, J. Y. (2023).	Quantitative Questionnaires	A structured online questionnaire (questions were based on the study topic)	First-year undergraduate university students.	–	555	Descriptive research design, two-factor model

Article20 Wang, Q., & Zhang, Q. (2015).	Quantitative Scales	Adolescents' Adaptability Scale (AAS)	College students in China；	–	650	T-test, one-way analysis of variance
Article21 Ju, Y. T., Zhang, X. J., & Chen, Y. M. (2020).	Mixed-method Research	A comprehensive questionnaire, Psychological Elasticity Scale	A "double first-class" university in Beijing	–	300	Descriptive analysis
Article22 Chen, J. (2019).	Quantitative Questionnaires	Questionnaire of college students' study and life fitness, satisfaction and mental health education needs	West Anhui Health Vocational College	–	1900	Descriptive analysis
Article25 Li, J., & Chen, X. Y. (2021).	Quantitative Questionnaires	Questionnaire of college students' mental health status during the epidemic period	A normal major at a university in Zhejiang Province	–	484	Descriptive analysis

Source: The Authors analysis

3.2 Measurement Dimensions of Psychological Adaptation

Psychological adaptation is a complex process that involves multiple aspects, each of which has unique factors that can predict its outcome (Bulgan & Ciftci, 2017). Researchers utilize many criteria to assess psychological adaptation according to their particular research goals and methodologies. Wang N. (2019) conducted a study on the psychological adaptation of college students in the modern period. The study highlights frequent hurdles in psychological adaptation, including learning difficulties, difficulty in daily living, and problems in interpersonal interactions. A study on psychological adaptation in first-year college students classifies the factors (contributing to adaptation difficulties) into five main categories: environment, learning, interpersonal relationships, emotions, and self (Fan & Jian, 2018). Furthermore, Wang (2019) emphasizes that while studying psychological adaptation among college students in this new era, it is important to include common challenges in learning, daily life, and social relationships as significant factors. The literature analysis revealed that the aspects of domestic research on psychological adaptation align closely with those examined by the aforementioned researchers. The majority of research primarily examines variables that are strongly associated with students' academic and personal lives, such as learning, personal experiences, and social interactions.

Lin (2022) and Huang et al. (2017) utilized the Chinese College Student Adaptation Scale (CCSAS) developed by Fang et al. (2005). The CCSAS assesses the psychological adaptation of college students in seven dimensions: interpersonal adaptation, study adaptation, campus adaptation, career choice adaptation, emotional adaptation, self-adaptation, and satisfaction. This assessment involves interviews, pre-tests, norm collection, and assessments of reliability and validity. Furthermore, the Adolescent Psychological Adjustment Scale (APAS), created by Chen & Chen (1988), is a widely used tool for assessing psychological adaptability. The scale assesses the psychological flexibility of teenagers across various domains, including their capacity to adjust to sports competition, unexpected situations, learning environments, exam anxiety, and group activities. On the other hand, Zhang & Jiang (2006) developed a cost-based framework for adolescent adaptation, using a literature review and expert consultations as a foundation. This structure consists of physiological adaptation, emotional adaptation, interpersonal adaptation, learning adaptation, social adaptation, and life adaptation. These different adaptation scales assume different roles and dimensions to ultimately approach well-being of individuals at different levels.

The research also revealed that some academics used a different track when studying students' psychological adaptation. Li & Chen (2021) compiled a questionnaire on "Psychological Health Status of College Students during the Epidemic" to investigate the psychological adaptation of college students after the resumption of schooling from diverse perspectives like response to classroom teaching, anxiety, fear, behavioral performance, depression and anger. According to Sun et al. (2022), there are four measurable indicators of psychological adaptation among college students: loneliness, self-esteem, depression, and anxiety. The mean values of the four scales are combined and summed to provide an indicator of psychological adaptation, with lower scores suggesting greater adaptation and higher scores indicating worse adaptation. Similarly, research on college freshmen has found that those who experience psychological discomfort in the areas of learning, interpersonal relationships, career goals, independent living, and resource utilization are prone to symptoms such as depression, anxiety, hostility, fear, obsession, and somatization (Zhong & Zhang2009; Ren 2022). This further substantiates the perspective that the psychological adaptation of college students can be assessed through psychological or physical manifestations, such as depression, worry, and apprehension. Though it is to be considered that different researchers employ various metrics.

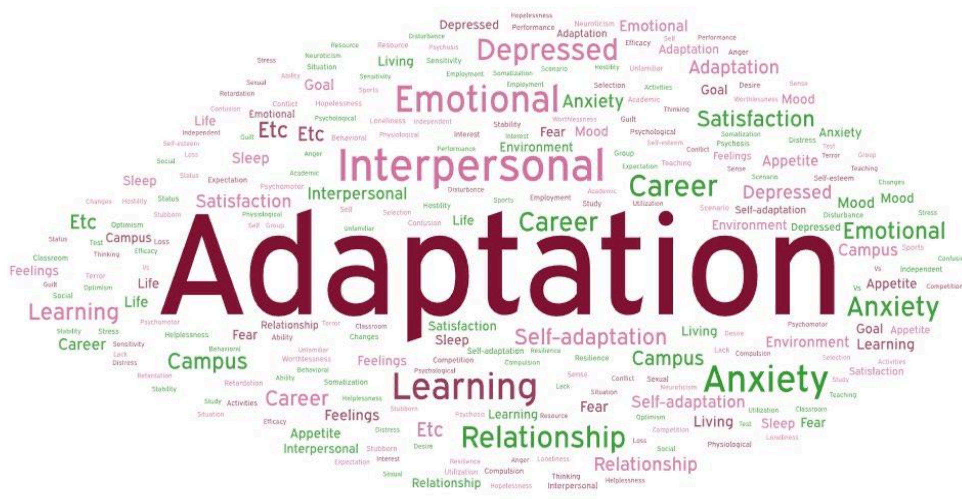

Figure 3: Dimensional Analysis of Psychological Adaptation

Summarize and further analyzing the measurement dimensions of Psychological Adaptation from 25 literature sources using word-art, the details as shown in Figure 3. Based on the above analysis, this study proposes that five main dimensions should be considered when addressing the psychological adaptation of college students: academics, self-concept, emotional regulation, interpersonal adaptation, and environmental (life) adaptation.

3.3 The Determinants of Psychological Adaptation

Psychological adaptation refers to building a state of adaptation between an individual and their group, society, and environment. The result of this interaction between an individual and society is the completion and creation of adaptation. The success of this adaptation depends not just on the individual but also on external elements such as the group, society, and the broader environment. Simply put, when the individual and the environment constantly interact, their combined effect is greater than if they were acting separately. As a result, the individual experiences growth and development over time. From this standpoint, comprehending the functioning and growth of a person is unattainable without comprehending the environment (Magnusson & Stattin, 2007; Millova & Blatny, 2015). The study on the psychological adaptation of college students indicates that the many psychological difficulties they encounter are connected to the distinct micro-environmental situations in which they were brought up and their present psychological adjustment (Ren, 2022). Micro-environmental situations are those situations that are unique to that particular individual and thereby define their predicament under the pretext of psychological adjustment they choose. By examining existing literature, it is evident that the psychological adjustment of college students is intricately linked to their diverse settings.

In a study conducted by Lin (2022) on higher vocational students, it was discovered that there is a favorable correlation between the psychological adaption, coping tendencies, and social support of these students. Furthermore, social support has a direct impact on the psychological adjustment of higher vocational students, and it also has an indirect influence by affecting their coping tendencies. In a study by Chen and Tu (2019), a survey was conducted on 1148 students from teacher training institutes. The findings revealed that teacher support had a substantial impact on students' academic adjustment. Furthermore, toughness emerged as a substantial factor in forecasting pupils' academic adaptation. In addition, the study conducted by Wang & Zhang (2015) revealed significant differences in psychological adjustment among Chinese college students based on their chosen field of study. Significantly, students majoring in physical education displayed the highest degree of adaptation, whilst those majoring in art exhibited the lowest. Moreover, notable disparities were noted among the different grades, with the second year exhibiting the most pronounced level of adaptation and the upper grades demonstrating the least amount of adaptation. Likewise, notable variations exist in the psychological adaptation of students belonging to distinct genders. In general, elements impacting college students' psychological adaptability can be divided into two categories: (1) internal and external factors; (2) micro (individual) factors, meso (intermediate social) and macro (wide environmental) factors.

Further investigation advocates internal factors as the primary influence conducive to psychological adaptation. This is also consistent with prior researchers' views that multiple levels of the surrounding environment influence an individual's development. Microsystems are the most influential level among them, as well as the most direct environmental design for individual development (Evans, 2024). To get to the specifics, the study by Lin (2022) discovered that Coping Tendency (+) => psychological adaptation; the study by Chen and Tu (2019) discovered that Hardiness (+) => learning adaptation; and the study by Yu et al. (2021) discovered that academic self-efficacy (+), perceived discrimination (-) => psychological adaptation. Among them, self-regulation (self-efficacy) is one of the influences that has received the most attention. This is also in correspondence with prior research conducted in the United States, which suggests that international students who possess higher levels of academic self-efficacy tend to have greater psychological adaptation (Bulgan & Çiftçi, 2017). Table 3 illustrates the examination of the variables that influence psychological adaptation.

Table 3: Influencing factors analysis on psychological adaptation

Factors		Articles	Method	Statistical findings	Outcome
Coping tendency Social support	Psychological adaptation	Lin, W. (2022).	Qualitative	r=0.765, p<0.01 r=0.599, p<0.01	Positive
Adaptation in life Adaptation in learning	Psychological adaptation	Zhang, H. Y., & Li, M. S. (2022).	Qualitative and quantitative	r = −0.438, p =0.000; r = −0.365, p= 0.000	Positive
Teacher support Hardiness	Learning adaptation	Chen, J.Y., & Tu, C.C (2019)	Qualitative	r=0.586, p<0.01, β=0.432, p<0.001 r=0.518, p<0.01, β=0.285, p<0.001	Positive
Refined push mode Extensive push mode	Psychological Adaptation	Zhu et al.,(2020)	Qualitative	P < 0.05 P > 0.05	Significantly No significant
Academic adaptation Academic self-efficacy Social support Perceived discrimination English proficiency . Cantonese proficiency Contact with locals	Psychological adaptation	Baohua Yu, Anita S. Mak & Peter Bodycott(2021)	Qualitative	r=0.49, p<0.01 r=0.43, p<0.01 β=0.32, p<0.001 r=0.32, p<0.01 β=0.17, p<0.001 r=-0.38, p<0.01 β=-0.30, p<0.001 r=0.16, p<0.01 r=0.13, p<0.01 r=0.14, p<0.01	Positive

Gender	Psychological adaptation	Sun，L.,Wang，K. X.,& Dong，W. J.,(2022)	Qualitative	t=13.051，p<0.000	Positive
Anyone around you has ever been diagnosed with COVID-19				t=18.188，p<0.000	
Gender	Psychological adaptation	Huang,C.L.,Zhao,X.Ch.,&Cheng,L.N.,(2017)	Qualitative	t=2.726，p<0.01	Positive
Origin of student				t=2.617，p<0.01	
Solve the problem				r=0.436，p<0.01	
Seek help				r=0.318，p<0.01	
Fantasy				r=-0.308，p<0.01	
Self-accusation				r=-0.289，p<0.01	
Rationalization				r=-0.246，p<0.01	
Retreat				r=-0.252，p<0.01	
Gender	Psychological adaptation	Qin et al.,(2022)	Qualitative	t=2.344，P=0.020,p<0.05	Positive
Gender				F=5.494, P=0.020, p<0.05	
Psychological resilience				r=0.265，p<0.01	
Gender	Negative factors	Ning,Q.L & Shi, J. Y.(2022)	Qualitative	t=2.466，p<0.05	Positive
Sports activities	Positive factors			F=40.611, p<0.05	
Sports activities	Negative factors			F=27.246, p<0.05	
Gender	Psychological adaptation	Wang,Q & Zhang, Q.(2015)	Qualitative	t=7.21，p<0.01	Positive
Major				F=27.66 (df=2), p<0.01	
Grade				F=5.43 (df=3), p<0.01	

Furthermore, while the micro level of internal effects must be addressed, the meso and macro levels of external forces, particularly social support, cannot be overlooked (Lin, 2022; Chen & Tu, 2019; Yu. et al. 2021; Li, 2022; and Fu et al., 2020). These studies look at how social support affects Chinese students' adaptability (psychological adaptation) as well as international students studying in China. In conformity to this proposition, Li, Xue, Wei & Guo (2023) utilized the structural equation model and mediation analysis and investigated the factors influencing international students' learning adaptability in China. They discovered a link between social relationships and learning attitudes. Similarly, some researchers have investigated the adaptability of Mainland Chinese students studying in Hong Kong, including an examination of social support elements. The emphasis on the role and status of social support in college students' (psychological) adaptation appears to be global. A study on the psychological adaptation of international students in Northern Cyprus discovered that unmet expectations, low economic satisfaction, and limited social support predicted acculturative stress (Ladum & Burkhold, 2019) reinforcing the importance of social support from a different perspective. Besides, for international students studying in China, language proficiency is identified as the primary factor influencing their adaptation to college life.

4. CONCLUSION AND RECOMMENDATIONS

A detailed and in-depth investigation of the existing literature provided comprehensive research of dimensions and determinants of psychological adaptation. It entails evidence for the correlation between mental health and mental adaptability from a unique perspective. The study prompts the advancement of mental health initiatives for college students and prioritizes their psychological adaptation to enhance the concentration and performance of college students' psychological adjustment. This will simultaneously yield improved theoretical and empirical results to better meet the mental health requirements of students. Even though met against the odds of theoretical and empirical limitations, the current study on the psychological adaptation of college students provides an insightful review of the collected literature. Research on psychological adaptation is often intertwined with studies on other adaptations or psychological symptoms. So, it is noted that psychological adaptation research has typically been interlinked with the research conducted by cross-cultural psychologists.

Furthermore, there are various adaptation scales used by researchers variably to measure the psychological adaptation of an individual, implying that the dimensions of psychological adaption measurement lack uniformity. Some researchers assess the psychological adaptation of college students by examining various components of their college experience such as academics, environment, life, etc. Others evaluate it by considering mental health or physical symptoms. Despite the scholars approaching psychological adaptation from various dimensions, the overall research encompasses five main dimensions: environmental (life) adaptation, interpersonal adaptation, academic adaptation, self-concept, and emotional adaptation. These are the five main dimensions that should be considered when addressing the psychological adaptation of college students and ultimately targeting a sustainable psychological adaptation of these students for their psychological health and well-being. Based on the examination and synthesis of the chosen literature, this study asserts that among the various determinants, self-efficacy (self-regulation) as an internal component significantly contributes to the psychological adjustment of college students. On the other hand, social support, as an external element, plays a crucial role in the psychological adaptation of college students at both the meso and macro levels.

5. RESEARCH GAPS AND FUTURE STUDY

It is critical to consider both subjective and objective limits when conducting research. In this study, the current status, dimensions, and affecting factors of college students' psychological adaption were examined utilizing the literature analysis approach. In this case, the impartiality and comprehensiveness of the literature selection have a direct impact on the scientific validity of the subsequent analysis. In addition to this, the selected literature focuses mostly on college students in China at both domestic and international level. However, there will always be limitations to the generalizability of research findings. Besides, the researcher's perspectives, preferences, and capacity to evaluate the topics will influence the discussion findings to some extent. Significantly, it is crucial to specifically focus on certain types of college students, namely first-year students, senior graduates, and rural college students, in order to address their psychological adaptability and happiness (Chen, J., 2019). Nevertheless, this study solely focused on the collective group of college students, and it is imperative that future research delves deeper into specific domains and strives for more robust investigation and expansion.

Author(s) Contributions: Yang Xia conceptualized the study, provided resources, performed formal analysis, and was responsible for writing the manuscript; Mohd Muslim Bin Md Zalli was responsible for reviewing the manuscript and contributed to the methodology. All authors have read and agreed to the published version of the manuscript.
Ethical Statement: The study proposal was approved by Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI). The researchers followed all the required ethical guidelines provided by the host university.
Competing Interests The authors declared that this work has no competing interests.
Declaration Statement of Generative AI: The author(s) of this work declared that they did not use any AI tools except Grammarly to improve the language of the study.

REFERENCES

Araque, F., Roldán, C., & Salguero, A. (2009). Factors influencing university drop out rates. *Computers & Education,53*(3), 563-574. https://doi.org/10.1016/j.compedu.2009.03.013

Bulgan, G., & Çiftçi, A. (2017). Psychological adaptation, marital satisfaction, and academic self-efficacy of international students. *Journal of International Students, 7*(3), 687-702. https://doi.org/10.5281/zenodo.570028

Cemalcilar, Z., & Falbo, T. (2008). A longitudinal study of the adaptation of international students in the United States. *Journal of Cross-Cultural Psychology, 39*(6), 799-804. https://doi.org/10.1177/0022022108323787

Chen, J. (2019). Perspective and reflection on college students' psychological adaptability and satisfaction from the perspective of mental health needs. *Journal of Jilin Normal University of Engineering and Technology, 9*, 23-25.

Chen, J. j., & Chen, H. C. (1988). Testing and analysis of temperament, psychological adaptability and volitional qualities of primary and secondary school students. *Educational Theory and Practice, 4*, 26-30.

Chen, J. Y., & Tu, C. C. (2019). A study on teacher support and learning adaptation among six-year normal university freshmen: The moderating effect of the hardiness. *Eurasia Journal of Mathematics, Science and Technology Education, 15*(12), em1827. https://doi.org/10.29333/ejmste/115847

Chen, X. L., Shan, C. Y., & Tian, Y. P. (2011). Characteristics and laws of physical and mental development of contemporary college students. *Science and Education Journal, 3*, 15-17.

Donado, M. L. G., Mercado-Peñaloza, M., & Dominguez-Lara, S. (2021). College adaptation among Colombian freshmen students: Internal structure of the Student Adaptation to College Questionnaire (SACQ). *Journal of New Approaches in Educational Research, 10*(2), 251-263. https://doi.org/10.7821/naer.2021.7.657

Doucerain, M. M. (2019). Moving forward in acculturation research by integrating insights from cultural psychology. *International Journal of Intercultural Relations, 73*, 11-24. https://doi.org/10.1016/j.ijintrel.2019.07.010

Ethington, C. A. (1990). A psychological model of student persistence. *Research in Higher Education, 31*(3), 279-293. https://doi.org/10.1007/BF00992313

Evans, O. G. (2024, January 17). *Bronfenbrenner's Ecological Systems Theory*. SimplyPsychology. Retrieved June 11, 2024, from https://www.simplypsychology.org/bronfenbrenner.html

Fan, P., & Jian, R. Y. (2018). Psychological adaptation problems of college freshmen and their solutions. *Reform and Opening Up, 4*, 128-129.

Fang, X. Y., Wo, J. Z., & Lin, X. Y. (2005). Development of Chinese college student adjustment scale. *Studies of Psychology and Behavior, 3*(2), 95.

Fonaprace. (2014, January 20). *IV Pesquisa do perfil do socioeconômico e cultural dos estudantes de graduação das instituições federais de ensino superior brasileiras*. ANDIFES. Retrieved June 11, 2024, from http://www.andifes.org.br/wp-content/uploads/2017/11/Pesquisa-de-Perfil-dos-Graduanso-dasIFES_2014.pdf

Fu, D., & Ma, N. (2018). Rethinking the psychological adaptation education of college freshmen. *Heilongjiang Education, 4*, 81-83.

Fu, Y. L., Li, P., Lv, S. B., Shen, Y. F., & Liu, X. L. (2020). The relationship between undergraduates' extroversion, social support and college life adaptation. *In Proceedings of the 2020 International Conference on Artificial Intelligence and Education (*pp. 433-438). IEEE. https://doi.org/10.1109/ICAIE50891.2020.00106

Hafida, S. H. N., Isa, N. K. M., Jumadi, & Khotimah, N. (2022). Is psychological adaptability needed for high school students in disaster-prone areas of Mount Merapi Eruption? *IOP Conference Series: Earth and Environmental Science, 986*(1), 012040. https://iopscience.iop.org/article/10.1088/1755-1315/986/1/012040/pdf

Huang, C. L., Zhao, X. C., & Cheng, L. N. (2017). Study on the relationship between psychological adaptation and coping styles among college freshmen. *Journal of Shaanxi Institute of Technology: Social Science Edition, 1*, 98-102+108.

Jones, L. B., Judkowicz, C., Hudec, K. L., Munthali, R. J., Prescivalli, A. P., Wang, A. Y., ... & Vigo, D. V. (2022). The World Mental Health International College Student Survey in Canada: Protocol for a Mental Health and Substance Use Trend Study. *JMIR Research Protocols, 11*(7), e35168. https://doi.org/10.2196/35168

Ju, Y. T., Zhang, X. J., & Chen, Y. M. (2020). Adaptation and growth of college freshmen from the perspective of overall health: A case study of a "Double First-class" university in Beijing. *Journal of Education of Chinese Minzu University, 2*, 49-62.

Ladum, A., & Burkholder, G. J. (2019). Psychological adaptation of international students in the Northern part of Cyprus. *Higher Learning Research Communications, 9*(1), 24-26. https://doi.org/10.18870/hlrc.v9i1.436

Li, J. B. (2022). Teacher-student relationships and academic adaptation in college freshmen: Disentangling the between-person and within-person effects. *Journal of Adolescence, 94*, 538-553. https://doi.org/10.1002/jad.12045

Li, J. M. (2021). Psychological Adaptation and Predictive Factors in Left-Behind Rural Junior High School Students [Master's thesis, Southwest University]. CNKI.

Li, J., & Chen, X. Y. (2021). Research on the current situation of psychological adaptation of college students returning to school in the post-epidemic era: A case study of normal students in a university in Zhejiang Province. *Journal of Jiangxi Electric Power Vocational and Technical College, 7*, 156-157+164.

Li, J., Xue, E., Wei, Y., & Guo, Y. (2023). Interactive effects and mediating roles of multiple factors that influence learning adaptive growth of international students: Evidence from China. *Behavioral Sciences, 13*(8), 682. https://doi.org/10.3390/bs13080682

Li, Y., & Zhou, X. L. (2017). Analysis of psychological adaptation problems and countermeasures of college students in independent colleges: A case study of the Business School of Yunnan Normal University. *Journal of Chifeng University, 10*, 145-147.

Lin, W. (2022). Research on coping tendency, social support, and psychological adaptation of higher vocational students. Chinese Journal of Multimedia and Network Teaching (China), 5, 229-232.

Magnusson, D., & Stattin, H. (2007). The person in context: A holistic-interactionistic approach. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology* (6th ed., Vol. 1, pp. 400-464). Wiley. https://doi.org/10.1002/9780470147658.chpsy0108

Mak, A. S., & Kim, I. (2011). Korean international students' coping resources and psychological adjustment in Australia. OMNES: *The Journal of Multicultural Society, 2*(1), 56-84. https://doi.org/10.15685/omnes.2011.06.2.1.56

Ning, Q. L., & Shi, J. Y. (2023). Psychological adaptation level optimization to attain the goal of sustainable education. *Journal of Community Psychology, 51*(4), 1607-1621. https://doi.org/10.1002/jcop.22942

Niu, H., Ren, S., & Li, S. (2022). Characteristics of the school adaptation of college freshmen during the COVID-19 epidemic. *Frontiers in Psychology, 13*, 915403. https://doi.org/10.3389/fpsyg.2022.915403

Nugmanova, D., Kozlova, I., & Kupriyanov, R. B. (2022). The peculiarities of adaptation of first-year students to the university during COVID-19 pandemic in Russia. *Revista de Psicología Clínica con Niños y Adolescentes, 9*(2), 4-38. https://dialnet.unirioja.es/servlet/articulo?codigo=8453555

Oakes, L. E., Ardoin, N. M., & Lambin, E. F. (2016). "I know, therefore I adapt?" Complexities of individual adaptation to climate-induced forest dieback in Alaska. *Ecology and Society, 21*(2), 40. https://www.jstor.org/stable/26270389

Ren, Q. P. (2022). Promoting psychological adaptation in university freshmen: A critical review. *Jiangsu Education, 64*, 7-9.

Sahao, F. T., & Kienen, N. (2021). University student adaptation and mental health: A systematic review of literature. *Psicologia Escolar e Educacional, 25*, e2424238. https://doi.org/10.1590/2175-35392021224238

Sun, L., Wang, K. X., & Dong, W. J. (2022). Investigation on the psychological adaptation of college students in provincial colleges and universities under the background of normal epidemic prevention. *Journal of Hubei Second Normal University, 3*, 85-90.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125. https://doi.org/10.3102/00346543045001089

Wang, N. (2019). Psychological adaptation of college students in the new era. *Gaokao, 12*(17).

Wang, Q., & Zhang, Q. (2015). An investigation of psychological adjustment differences among Chinese college students: From the perspectives of their gender, major, and grade. *Journal of Community Psychology, 6*, 2119-2124. https://doi.org/10.4236/psych.2015.616208

Wang, X., Zhang, N., Pu, C., Li, Y., Chen, H., & Li, M. (2022). Anxiety, depression, and PTSD among college students in the Post-COVID-19 Era: A cross-sectional study. *Brain Sciences, 12*(11), 1553. https://doi.org/10.3390/brainsci12111553

Yu, B., Mak, A. S., & Bodycott, P. (2021). Psychological and academic adaptation of mainland Chinese students in Hong Kong universities. *Studies in Higher Education, 46*(8), 1552-1564. https://doi.org/10.1080/03075079.2019.1693991

Zhang, D. J., & Jiang, Q. (2006). Compilation of Adaptation Subscale of Adolescent Mental Health Quality Questionnaire. *Studies of Psychology and Behavior, 2*, 81-84.

Zhang, H. Y., & Li, M. S. (2022). Factors affecting Chinese short-term international students' cross-cultural adaptation in psychology, learning, and life. *Discrete Dynamics in Nature and Society, 2022*, 5977713. https://doi.org/10.1155/2022/5977713

Zhang, X. L., Zhao, M. L., & Xie, X. C. (2017). A survey of foreign students' cross-cultural adaptation in Chongqing Normal University-A case study of Sri Lankan students. *Theory and Practice in Language Studies, 7*(4), 287-294. http://dx.doi.org/10.17507/tpls.0704.07

Zhong, X. Y., & Zhang, L. (2009). Psychological adaptation of college freshmen and its related research on mental health. *Higher Education Exploration, 4*, 128-132.

Vol.3, Issue.1, (2025)
International Journal of Management Thinking
https://doi.org/10.56868/ijmt.v3i1.97

Digital Marketing Capabilities and SME Performance in Oman's Logistics Industry: The Mediating Role of Crowdsourcing and Open Innovation

Faisal Ibrahim[1], Kamisah Supian[2], Amal Saleh Al Ubaidani[3], Fahad Al Abri[4], Wafa Al Hosni[5]

[1-5]Faculty of Business and Accountancy, Universiti Selangor (UNISEL), 40000, Selangor, Malaysia

Article Information

Article Type: Research Article

Dates:
Received: May 14, 2025
Revised: June 08, 2025
Accepted: June 17, 2025
Available online: June 19, 2025

Corresponding Author:

Faisal Ibrahim
Omani9611@gmail.com
https://orcid.org/0009-0001-6693-0695

ABSTRACT

This study examines the impact of digital marketing capabilities on the business performance of small and medium-sized enterprises (SMEs) in Oman's logistics industry, with a specific focus on the mediating roles of crowdsourcing and open innovation. A quantitative research approach was used, involving data collection from 400 top management personnel through structured questionnaires. The responses were analyzed using Smart-PLS and structural equation modelling techniques. The results reveal that online community engagement has a significant positive impact on business performance while crowdsourcing and open innovation also contribute meaningfully to performance enhancement. Although digital marketing capability alone does not directly influence performance, it plays an enabling role by strengthening online community engagement. Mediation analysis confirms that online community engagement indirectly improves business performance through the mediating effects of crowdsourcing and open innovation. The study concludes that active online engagement and collaborative innovation are critical drivers of SME success in Oman's logistics sector. Practically, SMEs should prioritize building online communities and leveraging crowdsourcing over relying solely on digital marketing tools. Policymakers are encouraged to support these efforts by fostering digital infrastructure and innovation ecosystems.

Keywords: Digital Marketing, SME Performance, Logistics Industry, Crowdsourcing, Open Innovation, Online Community Engagement, Oman

1. INTRODUCTION

In the rapidly evolving global business environment, digital marketing capabilities have emerged as a critical driver of competitive advantage, particularly for Small and Medium Enterprises (SMEs) operating in dynamic sectors such as logistics (Kanda et al., 2019). Digital marketing capability, involves strategically using digital channels and technologies to engage customers and build relationships. This capability is increasingly recognized as an essential resource for improving business performance (Alqassabi, 2020). In parallel, the rise of online community engagement has transformed how businesses interact with customers, creating participatory platforms that foster loyalty, knowledge sharing, and co-creation of value (Zhang et al., 2020). This study focuses on logistics industry SMEs in Oman, investigating how digital marketing capabilities and online community engagement influence their business performance, particularly through the mediating roles of crowdsourcing and open innovation.

In Oman, logistics plays a crucial role in supporting the economy by facilitating the easy transportation of goods, strengthening supply chains, and enhancing international trade (Shukri & Ismail, 2023). Many SME sectors in Oman contribute to the country's efforts in job creation, aligning with Oman Vision 2040 (Al Ghunaimi et al., 2025). SMEs in logistics are crucial to the sector but face challenges, including limited resources, difficulties in adopting new technologies, and intense competition from numerous other companies (Prasanna et al., 2019; Gélinas & Bigras, 2004). However, AL-Shboul (2019) proposed that SMEs can address these challenges by applying digital marketing skills, which enables increased customer reach, customization of services, and greater operational flexibility. Similarly, Nizar & Matriano, (2022) stressed that online communities provide people with more opportunities to communicate, boosts customer interest, and encourages creative solutions from the entire group. Digital marketing and community engagement are crucial for SMEs, studies are starting to reveal that their full benefits can be realized when combined with modern approaches, such as crowdsourcing and open innovation. Businesses use crowdsourcing to gather new ideas and solve problems by inviting many stakeholders to participate (Larsson et al., 2019). According to Kanda et al. (2019), open innovation involves leveraging both internal and external knowledge to bring ideas to market more quickly and achieve a competitive edge. The two mechanisms have led to stronger innovation results and higher performance in diverse industries (Richard et al., 2019). There is limited research on the role of mediators in digital marketing and community websites within small logistics companies in Oman (Kant & Kanda, 2019).

Numerous studies indicate that effective digital marketing leads to improved business outcomes; however, few have explored the underlying mechanisms behind this phenomenon (Moradi et al., 2021). Additionally, there has been limited investigation into the roles of crowdsourcing and open innovation in facilitating value co-creation (Ober, 2022). While participation in online communities fosters customer engagement and generates new ideas (Flamini et al., 2022), there remains a lack of understanding regarding their effects on digital marketing capabilities and approaches to innovation management. Furthermore, little research has focused on small and medium-sized enterprises (SMEs) in countries such as Oman, making it challenging to assess their specific needs for effective policy and management decisions. Addressing this gap is crucial, as Oman's readiness for technology and its economic conditions could significantly influence the development of digital marketing and innovation.

To address these gaps, this study adopts a holistic approach by integrating digital marketing capability, online community engagement, crowdsourcing, and open innovation within a unified research framework to explain business performance among logistics industry SMEs in Oman. Unlike previous studies that often examine these variables in isolation, this research explores the interrelationships and mediating pathways, thereby providing deeper insights into the mechanisms through which digital marketing capability translates into competitive advantages. Moreover, focusing on Oman's logistics SMEs contributes to the literature by contextualizing theoretical constructs within a developing country setting, thereby enriching the understanding of digital marketing and innovation dynamics beyond Western-centric perspectives.

This study aims to investigate whether crowdsourcing and open innovation mediate the relationship between digital marketing capability and online community engagement and their impact on the business performance of logistics SMEs in Oman. It also seeks to assess the overall business performance of these SMEs, examine the effects of digital marketing capability and online community engagement on crowdsourcing and open innovation, and evaluate how these factors collectively influence business performance. This study makes several significant contributions.

First, it enhances the academic discussion by empirically demonstrating that crowdsourcing and open innovation play crucial roles in connecting digital marketing capabilities and online community engagement to business performance. This new insight enriches the innovation literature by emphasizing the collaborative and participatory aspects of digital marketing strategies within small and medium-sized enterprises (SMEs). Second, the research offers practical implications for managers and policymakers in Oman and similar emerging markets by identifying actionable strategies to improve SME performance through integrated digital marketing and innovation efforts. Lastly, this study addresses the need for context-specific research in digital marketing and innovation by providing evidence-based recommendations tailored to the logistics sector's unique features, such as its operational complexity and focus on customer service.

2. LITERATURE REVIEW

Improving firm performance through digital marketing skills (DMC) is now a vital concern in the business world (Zhang, 2022). DMC refers to a company's ability to effectively utilize digital tools and strategies to meet customer needs, create value, and maintain competitiveness (Brown, 2019). It has been recognized as essential for any small or medium-sized enterprise (SME) that aims to stay responsive and agile (Prasanna et al., 2019). Homburg and Wielgos (2022) suggested that strong digital marketing skills enable a firm to respond effectively to market demands, enhance brand visibility, and foster customer loyalty, ultimately leading to improved business outcomes. For SMEs, maximizing the use of digital tools is crucial due to their limited resources and size (Alemu et al., 2021). By leveraging digital marketing, SMEs can compete with larger companies by reaching a broader audience and tailoring their communication to address customer needs (Kapoor & Kapoor, 2021).

Digital marketing is becoming increasingly effective, making online community engagement even more crucial for fostering strong firm-customer relationships (Herhausen et al., 2020). Online community engagement (OCE) involves interacting with customers on social media, forums, and brand communities (Apasrawirote et al., 2022). Unlike regular marketing communication, online community engagement enables a two-way conversation where customers participate by sharing their views, discussing their experiences, and helping shape the offerings (Ibarra et al., 2020). Joining online conversations helps small and medium-sized enterprises form positive relationships with their clients, who in turn support their brand. When members of these online communities can actively participate, their happiness with the site and their loyalty increase (Varadarajan, 2020). Online community engagement (OCE) is recognized for its significant impact on marketing and for driving innovative ideas by leveraging the accumulated knowledge and networks of individuals within the community (Jankalová & Jankal, 2020).

Crowdsourcing combines digital marketing and community networking by enabling organizations to leverage a network of outside contributors' ideas and abilities (Khan, 2017). By collaborating with others, SMEs can enhance their innovation by gaining support and ideas from customers, partners, and stakeholders (Gregory et al., 2019). Empirical data indicate that relying on crowdsourcing can accelerate the innovation process, reduce development costs, and deliver products that better meet customers' needs (Nam & Kannan, 2020). SMEs find this especially helpful, as they often struggle to maintain their research and development (R&D) efforts (Martinez et al., 2018). Crowdsourcing enables digital marketing and engagement efforts to evolve into valuable innovations, directly linking market intelligence with the innovation process.

Similarly, open innovation refers to companies utilizing both inbound and outbound knowledge from various sources to create and sell products (Flamini et al., 2022). This approach motivates organizations to collaborate with external stakeholders, such as suppliers, customers, and research institutions, to promote faster innovation (Richard et al., 2019). As a result of open innovation strategies, SMEs experience improved innovation performance thanks to greater resource availability, faster product introduction, and fewer risks during new product development (Wiederhold, 2020). Small and medium-sized enterprises in emerging markets must leverage open innovation to connect with the world's knowledge and respond promptly to shifting local demands (Luo et al., 2020). Although open innovation has proven beneficial, its application in digital marketing and through active communities remains underexplored and warrants further investigation (Zhang et al., 2020).

Digital marketing, engaging online communities, crowdsourcing ideas, and open innovation collectively guide the growth and success of small and medium-sized enterprises (SMEs) in their respective fields (Al-Shuaili et al., 2019). As SMEs begin digital marketing, they establish their online presence and engage with customers. Open innovation enhances collaborative efforts by establishing formal relationships and sharing knowledge beyond the company, thereby encouraging the generation of new ideas (Nam & Kannan, 2020). By implementing integrated approaches, SMEs can enhance their ability to identify, absorb, and utilize knowledge from outside, which significantly supports their efforts to innovate (Mishra et al., 2020).

Although these constructs are known to be important, previous research seldom considers their role in business performance together (Al Mawli et al., 2021). In studies of SME research, the limited resources highlight the need for SMEs to integrate marketing and innovation strategies (Hamed, 2019). Much is known about digital marketing and open innovation connections in large companies from developed countries (Alraja et al., 2020). However, there has not yet been an extensive study of these links in small businesses in emerging countries (Al Farsi & Alattar, 2021). As a result, the number of research-based conclusions is limited, and the development of solutions tailored to regional needs is hindered since logistics plays a crucial role in diversifying Oman's economy (Al Buraiki & Khan, 2018). The conceptual model is shown in Figure 1.

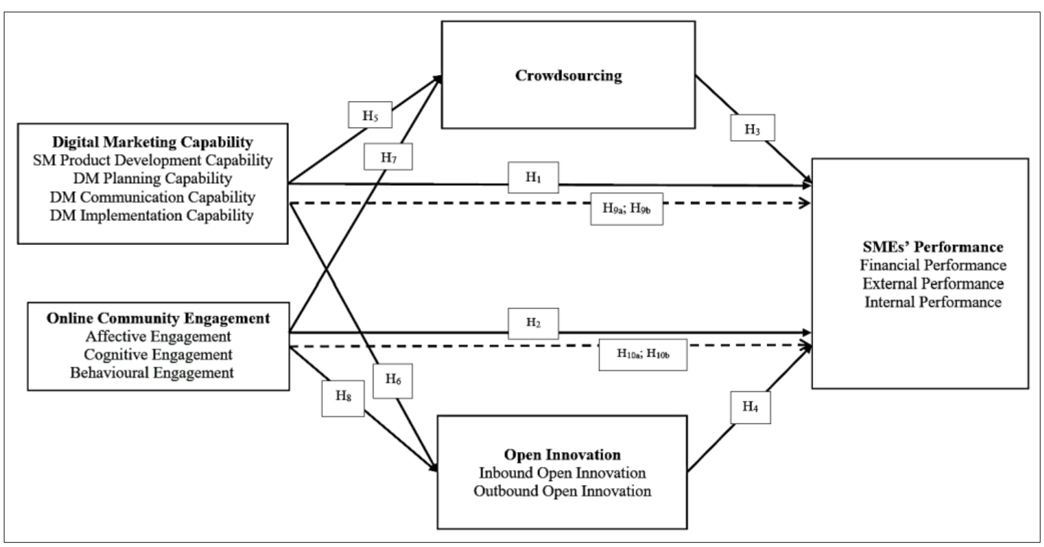

Figure 1: Conceptual Framework

3. METHODOLOGY

3.1 Research Design

This research employs an exploratory quantitative design to investigate the impact of digital marketing capabilities and online community engagement on the performance of SMEs in Oman's logistics industry, with a focus on the mediating roles of crowdsourcing and open innovation. This design is appropriate for uncovering how complex phenomena operate in under-researched contexts, enabling both the generation and testing of ideas. The quantitative approach enables the collection of precise numerical data that supports generalization and causal inference. Guided by a deductive approach, the study builds on established theories and validates them through empirical data. The use of a large and diverse sample enhances the relevance and applicability of the findings for both researchers and practitioners. The overall research study flowchart is shown in Figure 2.

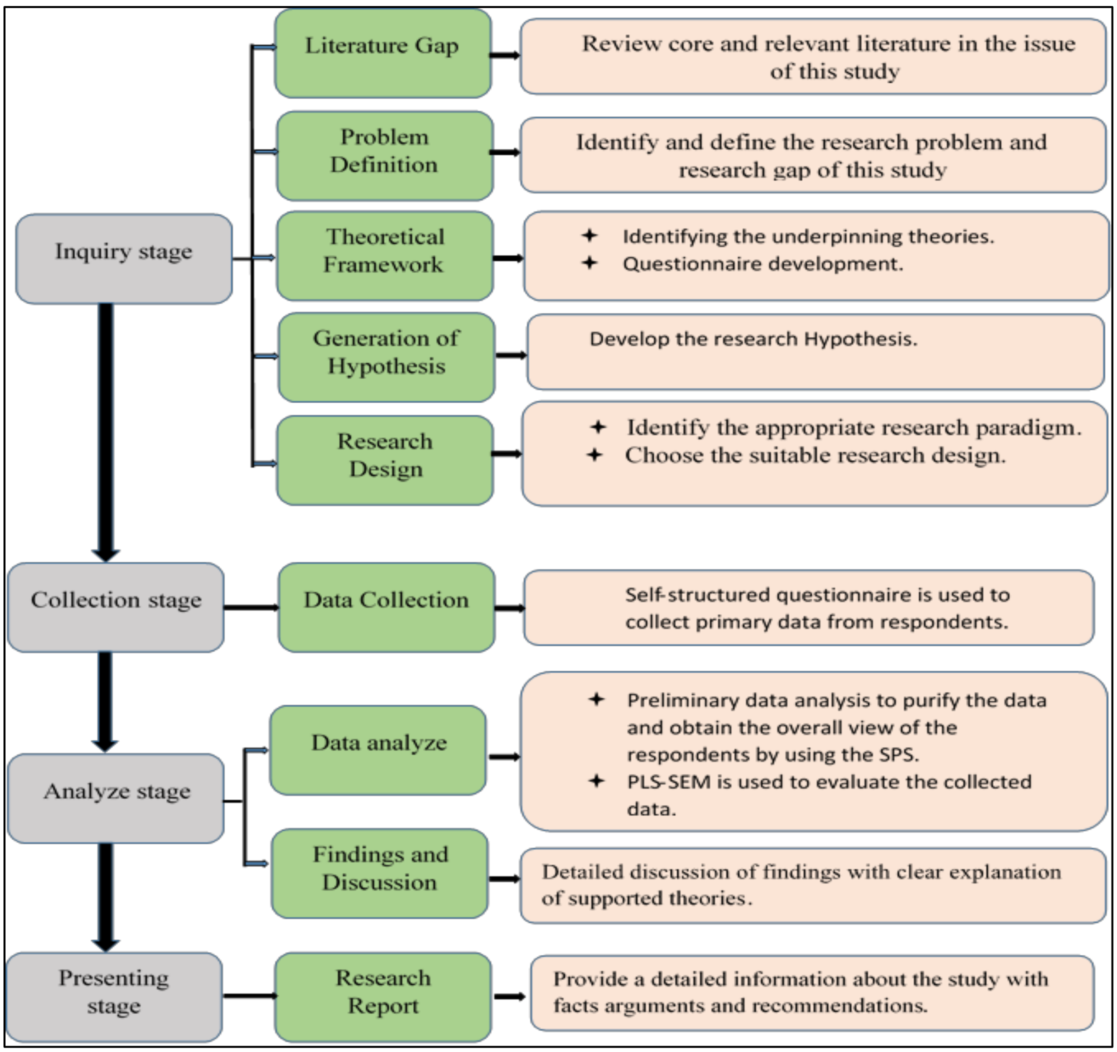

Figure 2: Research Process and Flowchart

3.2 Population and Sample

The target population of this research consists of top management personnel in SMEs operating within Oman's logistics sector, particularly those with substantial knowledge of and direct involvement in business operations. It includes owners, founders, Chief Executive Officers (CEOs), Chief Operating Officers (COOs), managers, and executives. According to the Public Authority for SME Development (Riyada), there are approximately 60,000 management-level personnel across over 31,000 registered small and medium-sized enterprises (SMEs) in the transport and logistics sector. Based on sample size recommendations for large populations, a minimum of 381 respondents was deemed sufficient to ensure the representativeness of the results. To reduce potential non-response bias, 400 questionnaires were distributed using purposive sampling, targeting individuals with the necessary qualifications and decision-making roles. This method ensured that respondents could provide informed and reliable insights on digital marketing, innovation, and business performance within the sector.

3.3 Data Collection Instruments

Data for this study were collected using a structured questionnaire developed from validated measurement scales identified through an extensive literature review. The constructs covered include digital marketing capability, online community engagement, crowdsourcing, open innovation, and business performance. To ensure content validity, the instrument underwent expert evaluation, followed by a pre-test and pilot study involving 30 SME managers in Muscat. Based on the feedback, revisions were made to refine the clarity and relevance of the items.

Data collection was conducted in two phases. In the first phase, the instrument was reviewed and tested with experts and a small sample to confirm reliability. In the second phase, the finalized questionnaire was distributed to the target respondents using Google Forms, enabling wide geographic reach and convenience. Prior to distribution, coordination with selected SMEs was established through phone calls and official email communications. The online survey method ensured uniform question delivery and preserved respondent anonymity.

To address common issues such as response bias and misinterpretation, the survey included clear instructions, and regular follow-up communication was maintained. A visual overview of the data collection process is provided in Figure 3.

The questionnaire was organized into five sections:

- Section A: Captures demographic data including gender, age group, educational background, job position, managerial experience, number of employees, years of business operation, and location.
- Section B: Measures the dependent variable—business performance—through three dimensions: financial performance, internal non-financial performance, and external non-financial performance (Zehir et al, 2016; Raymond and St-Pierre, 2013; Raymond et al, 2010; Lim et al, 2020).
- Sections C and D: Focus on the independent variables. Digital marketing capability is assessed across four sub-dimensions: social media product development capability, digital marketing planning capability, digital marketing communication capability, and digital marketing implementation capability. Online community engagement is evaluated through affective, cognitive, and behavioural engagement (Chahal and Kaur, 2014; Weerawardena, 2003; Tarsakoo and Charoensukmongkol, 2020; Vorhies and Morgan, 2025; Dessart, 2017; Dessart et al, 2016; Algharabat and Rana, 2021).

- Sections E and F: Examine the moderating variables, namely crowdsourcing and open innovation, measured through inbound and outbound innovation activities (Xu, 2015; Sisodiya et al, 2013; Cheng and Huizingh, 2024; de Andrés-Sánchez et al, 2022).

The complete questionnaire is included in Appendix A.

A total of 400 SMEs were invited to participate in the survey. Although the required minimum sample size was 381 respondents, a total of 384 completed responses were received, after data screening, 4 responses were excluded due to outlier issues, resulting in 381 usable surveys for data analysis. Additionally, ethical consideration were included and formal written consent were obtained from the university as well from the respondents.

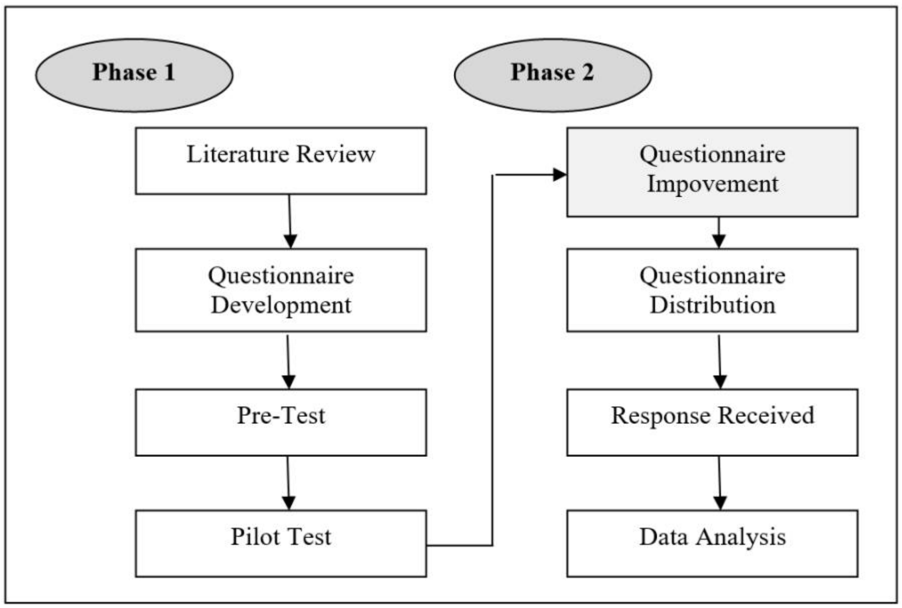

Figure 3: Data Collection Procedure

3.4 Data Analysis Techniques

Data were analyzed in two stages. First, the Statistical Package for the Social Sciences (SPSS, version 27) was used for data cleaning, screening, and testing reliability. It ensured data completeness, normality, and readiness for analysis. Next, Partial Least Squares Structural Equation Modelling (PLS-SEM) was applied to test the measurement and structural models, assess mediating effects, and validate the relationships among digital marketing capability, online community engagement, crowdsourcing, open innovation, and business performance.

4. RESULTS AND ANALYSIS

4.1 Demographic Profile

The demographic characteristics of the respondents shown in Table 1 revealed male participants (64.2%), reflecting social norms in Oman, while female respondents comprised 35.8%. Most participants fell within the 30–39 age group (34.7%), followed by those in the 40–49 age group (26.3%). In terms of educational background, respondents were well-qualified, with the majority holding bachelor's degrees (29.7%), followed by master's degrees (25.5%), diplomas (25.3%), and PhDs (19.5%). Job positions were distributed across key leadership roles, including managers (27.1%), chief operating officers (26.6%), founders and CEOs (23.9%), and executives (22.4%). Most SMEs had been operating for less than 10 years (40.8%), while only 9.7% had been in operation for over 25 years, indicating a mix of emerging and mature firms.

Lastly, 44.2% of respondents worked in medium-sized enterprises (51–150 employees), 31.1% in small enterprises (10–50 employees), and 24.7% in micro-enterprises (fewer than 10 employees), underscoring the dominance of medium-sized firms in Oman's logistics industry.

Table 1: Demographic Profile of Respondents (N= 381)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	245	64.2
	Female	136	35.8
Age Group	30–39 years	132	34.7
	40–49 years	100	26.3
	>50 years	59	15.5
Educational Qualification	Diploma	96	25.3
	Bachelor's Degree	113	29.7
	Master's Degree	97	25.5
	PhD	74	19.5
Job Position	Manager	103	27.1
	Chief Operating Officer (COO)	101	26.6
	Founder/Chief Executive Officer (CEO)	91	23.9
	Executive	86	22.4
Managerial Experience	<15 years	272	71.4
	16–20 years	70	18.4
	>21 years	39	10.3
Years of SME Operation	<10 years	156	40.8
	>25 years	37	9.7
Number of Employees	<10 employees (Micro)	94	24.7
	10–50 employees (Small)	119	31.1
	51–150 employees (Medium)	168	44.2

4.2 Descriptive Statistics

Table 2 presents the statistics, highlighting key aspects of the variables and providing valuable information about the digital marketing and business outcomes of Oman's SME logistics industry. According to the mean scores, Internal Non-Financial Performance and Digital Marketing Planning Capability are the areas to which SMEs give the most importance, suggesting they focus on strategic planning and being effective internally.

On the other hand, Crowdsourcing (3.60) and Behavioural Engagement (3.68) demonstrate relatively low means, indicating that customer participation and engagement are less prioritized. The values for standard deviations range from 0.65 to 0.85, indicating that answers varied significantly, and external Non-Financial Performance had the most significant difference in scores, followed by crowdsourcing. Generally, the study indicates that even though SMEs in Oman's logistics sector are aware of digital marketing, they could do more to benefit from crowdsourcing and engaging customers to improve their results.

Table 2: Descriptive Statistics

Variable	Mean	Std. Deviation
Financial Performance	3.85	0.72
Internal Non-Financial Performance	4.12	0.65
External Non-Financial Performance	3.78	0.81
Social Media Product Development Capability	3.95	0.68
Digital Marketing Planning Capability	4.05	0.74
Digital Marketing Communication Capability	3.88	0.69
Digital Marketing Implementation Capability	3.92	0.71
Affective Engagement	3.75	0.77
Cognitive Engagement	3.82	0.73
Behavioural Engagement	3.68	0.8
Crowdsourcing	3.6	0.85
Inbound Open Innovation	3.95	0.7
Outbound Open Innovation	3.72	0.78

Table 3 describes the findings of the Fornell–Lacker criterion assessment and the correlations between constructs is at the lower left triangle. Overall, the square roots of the AVE for the reflective constructs are 0.939 (affective engagement), 0898 (behavioural engagement), 0.909 (cognitive engagement), 0.900 (crowdsourcing), 0.929 (external non-financial performance), 0.883 (financial performance), 0.905 (internal non-financial performance), 0.862 (inbound open innovation), 0.917 (digital marketing communication capability), 0.929 (digital marketing implementation capability), 0.907 (digital marketing planning capability), 0.892 (outbound open innovation), and 0.891 (social media product development capability). These findings indicate that there exists a discriminant validity for the lower-order constructs.

Table 3: Fornell-Lacker Criterion Result for Lower-Order Constructs

	AE	BE	CE	CS	ENFP	FP	INFP	IOI	MCC	MIC	MPC	OOI	PDC
AE	**0.939**												
BE	0.881	**0.898**											
CE	0.637	0.859	**0.909**										

CS	0.711	0.762	0.842	**0.900**									
ENFP	0.864	0.823	0.653	0.600	**0.929**								
FP	0.645	0.771	0.741	0.766	0.658	**0.883**							
INFP	0.801	0.11	0.743	0.866	0.642	0.683	**0.905**						
IOI	0.779	0.686	0.814	0.801	0.737	0.706	0.672	**0.862**					
MCC	0.740	0.767	0.705	0.681	0.707	0.852	0.729	0.589	**0.917**				
MIC	0.761	0.651	0.611	0.813	0.631	0.762	0.633	0.782	0.594	**0.929**			
MPC	0.854	0.879	0.786	0.684	0.613	0.824	0.839	0.637	0.750	0.629	**0.907**		
OOI	0.775	0.704	0.721	0.844	0.646	0.705	0.781	0.728	0.872	0.621	0.618	**0.892**	
PDC	0.666	0.642	0.683	0.712	0.601	0.611	0.713	0.731	0.749	0.625	0.636	0.631	**0.891**

Note: FP denotes Financial Performance; INFP denotes Internal Non-financial Performance; ENFP denotes External Non-financial Performance; PDC denotes Social Media Product Development Capability; MPC denotes Digital Marketing Planning Capability; MCC denotes Digital Marketing Communication Capability; MIC denotes Digital Marketing Implementation Capability; AE denotes Affective Engagement; CE denotes Cognitive Engagement; BE denotes Behavioural Engagement; CS denotes Crowdsourcing; IOI denotes Inbound Open Innovation; OOI denotes Outbound Open Innovation

4.3 Measurement Model Results

Table 4 demonstrates the high measurement reliability, convergent validity, and proper item correlation, as indicated by Cronbach's Alpha (α), composite reliability (CR) values exceeding 0.7, and average variance extracted (AVE) values greater than 0.5. The scales of behavioral engagement (α=0.943, CR=0.977, AVE=0.932) and crowdsourcing (α=0.928, CR=0.963, AVE=0.901) work very well. At the same time, the lower results for digital marketing communication capability and open innovation (Inbound with CR=0.788, AVE=0.551, and Outbound with CR=0.773, AVE=0.533) indicate that these results provide a psychometric background for further analysis of the structural model and point out certain constructs that could benefit from closer attention in future research. The analysis confirms that these constructs are valid for evaluating the effects of digital marketing on the SME logistics sector in Oman.

Table 4: Reliability and Convergent Validity Analysis

Construct	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Financial Performance	0.879	0.902	0.701
Internal Non-financial Performance	0.792	0.949	0.823
External Non-financial Performance	0.846	0.893	0.735
SM Product Development Capability	0.808	0.971	0.894
Digital Marketing Planning Capability	0.862	0.948	0.857
Digital Marketing Communication Capab.	0.845	0.846	0.647
Digital Marketing Implementation Capab.	0.877	0.921	0.801
Affective Engagement	0.878	0.91	0.773
Cognitive Engagement	0.888	0.925	0.809
Behavioural Engagement	0.943	0.977	0.932
Crowdsourcing	0.928	0.963	0.901
Inbound Open Innovation	0.828	0.788	0.551

Outbound Open Innovation	0.84	0.773	0.533

Table 5 shows that the ratios obtained from HTMT are below the conservative threshold of 0.85, indicating that every construct in the model is distinct from the others. Among all the relationships, the highest agreement is observed between cognitive engagement and outbound open innovation (0.844) and behavioural engagement and crowdsourcing (0.847), indicating a significant and clear link while maintaining discriminant validity.

Many digital marketing capability constructs are only moderately related to financial performance (FP) (with correlations ranging from 0.423 to 0.576), indicating that other variables may influence their relationship. The findings indicate that the structure of the measurement model is sound and suggest that the results in the structural model warrant further analysis. The results encourage us to proceed with assurance and test the proposed links between digital marketing activities and business results.

Table 5: Heterotrait-Monotrait Ratio (HTMT) Result for Lower-Order Constructs

	AE	BE	CE	CS	ENFP	FP	INFP	IOI	MCC	MIC	MPC	OOI	PDC
AE													
BE	0.741												
CE	0.778	0.798											
CS	0.709	0.847	0.832										
ENFP	0.820	0.782	0.788	0.694									
FP	0.753	0.786	0.825	0.826	0.753								
INFP	0.723	0.740	0.814	0.743	0.769	0.760							
IOI	0.794	0.827	0.768	0.832	0.822	0.764	0.755						
MCC	0.834	0.818	0.830	0.650	0.751	0.567	0.831	0.690					
MIC	0.822	0.831	0.787	0.619	0.769	0.558	0.643	0.773	0.664				
MPC	0.790	0.831	0.788	0.809	0.789	0.576	0.631	0.567	0.524	0.541			
OOI	0.754	0.722	0.844	0.810	0.726	0.423	0.656	0.604	0.568	0.556	0.582		
PDC	0.797	0.749	0.837	0.514	0.755	0.678	0.805	0.476	0.616	0.608	0.543	0.490	

Note: FP denotes Financial Performance; INFP denotes Internal Non-financial Performance; ENFP denotes External Non-financial Performance; PDC denotes Social Media Product Development Capability; MPC denotes Digital Marketing Planning Capability; MCC denotes Digital Marketing Communication Capability; MIC denotes Digital Marketing Implementation Capability; AE denotes Affective Engagement; CE denotes Cognitive Engagement; BE denotes Behavioural Engagement; CS denotes Crowdsourcing; IOI denotes Inbound Open Innovation; OOI denotes Outbound Open Innovation

4.4 Hypothesis Testing

Table 6 illustrates that digital engagement approaches are crucial to enhancing business performance for SMEs in the Omani logistics sector. BP is strongly influenced by online community engagement ($\beta = 0.788$, $p < 0.001$) and crowdsourcing ($\beta = 0.603$, $p < 0.001$). Open innovation (H4: $\beta = 0.311$, $p < 0.05$) demonstrates a statistically significant, albeit weaker, influence on industry innovation. Overall, Online community engagement leads to higher Crowdsourcing (H7: $\beta = 0.920$, $p < 0.001$) and Open Innovation (H8: $\beta = 0.801$, $p < 0.001$), indicating it is a key factor in these strategies. To sum up, the direct impacts of Digital Marketing Capability on BP (H1) were not supported, nor were its direct impacts on Crowdsourcing (H5) and Open Innovation (H6). It stresses that, while digital tools are helpful, logistics SMEs achieve their best performance by staying involved with the community and collaborating with others.

Table 6: Path Coefficients of the Structural Model (Direct Effects)

Hypotheses	Path Coefficient	*t*-statistic	*p*-value
H_1: Digital Marketing Capability → BP	0.071	1.031	$.303^{NS}$
H_2: Online Community Engagement → BP	0.788	10.648	$.000^{***}$
H_3: Crowdsourcing → BP	0.603	4.312	$.000^{***}$
H_4: Open Innovation →BP	0.311	2.020	$.043^{**}$
H_5: Digital Marketing Capability → Crowdsourcing	0.048	.0537	$.591^{NS}$
H_6: Digital Marketing Capability → Open Innovation	0.150	1.259	0.208^{NS}
H_7: Only. Community Engagement → Crowdsourcing	0.920	12.944	$.000^{***}$
H_8: Only. Community Engagement → Open Innovation	0.801	7.742	$.000^{***}$

Note: *** denotes significance at .001 level; ** denotes significance at .05 level; ^{NS} denotes not significant.

Table 7 shows that the results indicate that Online Community Engagement enhances Business Performance through two necessary mediating mechanisms: Crowdsourcing and Open Innovation (H10a, $\beta = 0.553$, $p < 0.01$ and H10b, $\beta = 0.249$, $p < 0.05$). Crowdsourcing, which accounts for the most significant part (roughly 70%) of Community Engagement's impact on performance, highlights the role of collaborating customers and suppliers in enhancing work performance. Similarly, the results did not indicate that Digital Marketing Capability indirectly affected higher-order marketing practices, suggesting it adds value by facilitating other activities rather than acting alone (H9a-H9b). These results indicate that SMEs need to improve their digital skills, but involving the community and leveraging that involvement for group innovation is what enables them to achieve the highest performance benefits. Researchers emphasize that the most significant benefit of digital transformation stems from carefully guiding engagement into co-creation and open innovation systems.

Table 7: Indirect Effects (Mediation) Results

Hypotheses	Indirect Effects	*t*-stat	*p*-value
H_{9a}: Digital Marketing Capability → Crowdsourcing → BP	0.025	0.522	$.602^{NS}$
H_{9b}: Digital Marketing Capability → Open Innovation → BP	0.042	1.055	$.291^{NS}$
H_{10a}: Only. Community Engagement → Crowdsourcing → BP	0.553	3.935	$.010^{**}$
H_{10b}: Only. Community Engagement → Open Innovation → BP	0.249	1.925	0.044^{**}

Note: *** denotes significance at .001 level; ** denotes significance at .05 level; ^{NS} denotes not significant.

4.5 Predictive Validity of Inner Model using PLS predict

Table 8 illustrates that PLS-Predict identified the model as effective in predicting important results. Business performance (BP) has the highest success rate in prediction ($Q^2 = 0.328$). The RMSE of the model (0.412) is also significantly lower than the benchmark (0.502), indicating that advancing digital marketing aids in forecasting future business performance. Although crowdsourcing demonstrated the highest accuracy ($Q^2 = 0.297$), both Crowdsourcing and Open Innovation ($Q^2 = 0.281$) provided strong predictions. Open Innovation, however, could still be worked on for higher accuracy. The findings demonstrate that the approach is effective in enhancing SME success through the use of digital tools. These results align with the structural model, proving the significance of these approaches for Oman's logistics industry.

Table 8: PLS-Predict Results for Key Endogenous Variables

Construct	RMSE (Model)	RMSE (LM Benchmark)	Q² Predict	Prediction Accuracy
Business Performance (BP)	0.412	0.502	0.328	High
Crowdsourcing	0.376	0.441	0.297	High
Open Innovation	0.401	0.487	0.281	Medium-High

4.6 Discussion

This research examines the relationship between digital marketing and its impact on logistics companies in Oman, benefiting both academics and practitioners. Online engagement with customers has been shown to significantly enhance a company's business performance ($\beta = 0.788$, $p < 0.001$), a finding also emphasized in prior research on customer and stakeholder interactions (Al Qubtan & Gan, 2020). It demonstrates that involvement with customers promotes trust, loyalty, and teamwork —key aspects for SMEs operating in challenging markets. Likewise, crowdsourcing ($\beta = 0.603$, $p < 0.001$) and open innovation ($\beta = 0.311$, $p < 0.05$) significantly improve performance, aligning with findings that highlight collaborative innovation as a key factor in a company's success (Alemu et al., 2021). Still, having only digital marketing ability does not demonstrate a significant effect, in contrast to past research that examined similar topics (Al Maqbali et al., 2021), which emphasizes the importance of using digital marketing in conjunction with involving people.

A mediation reveals that online community engagement mainly impacts results through crowdsourcing and open innovation ($\beta = 0.553$, $p < 0.01$ for crowdsourcing and $\beta = 0.249$, $p < 0.05$ for open innovation). It is supported by the "engagement-innovation-performance" paradigm (Alqassabi, 2020) because such platforms help generate knowledge and foster innovation. Digital marketing capability, not commonly discussed in mediation research, acts more as an infrastructure builder than a key influencer of the performance, adding to the traditional theories. These insights are strongly supported by the model's high predictive accuracy ($Q^2 > 0.28$ for every endogenous construct) and the thorough validity tests (AVE > 0.5 for most constructs). The study results align with international studies on digital transformation for small and medium-sized enterprises (SMEs). However, they are also well-suited to the Omani logistics sector, which requires careful prioritization due to its limited resources and infrastructure.

4.7 Implications of the Study

This study offers both theoretical and practical contributions to the understanding of SME performance in the digital and innovation-driven landscape, particularly within Oman's logistics sector. Theoretically, the study advances knowledge by integrating the Dynamic Capabilities View (DCV), Social Support Theory (SST), and Diffusion of Innovation Theory (DIT) to explain how SMEs manage innovation and utilize both internal capabilities and external engagement. The combination of SST and DIT provides a clearer understanding of how firms that blend digital tools with collaborative strategies outperform competitors. While prior studies offered mixed findings on the link between dynamic capabilities and performance, this research confirms that context matters especially in emerging economies like Oman where digital marketing capability alone may not directly drive success due to varying economic and cultural conditions.

Practically, the findings highlight that performance improvements are more strongly tied to online community engagement, crowdsourcing, and open innovation than to digital infrastructure alone. SME managers are encouraged to build platforms for customer and partner collaboration, invest in training to foster engagement-driven innovation, and participate in open innovation networks. Support from policymakers in the form of funding and strategic guidance can help SMEs integrate these practices, ultimately contributing to Oman's vision of a digitally enabled economy.

5. CONCLUSION AND RECOMMENDATIONS

Digital marketing capabilities, crowdsourcing, and open innovation were investigated to understand their influence on the performance of SME logistics companies in Oman. The results emphasize that engaging the community through the internet is key to performance, as it influences crowd invention and open innovation. However, technological solutions alone were insufficient to make significant improvements, so combining them with interactive strategies is crucial. As a result, we are contributing to what emerging economies understand about digital transformation while validating the linkages between engagement, innovation, and performance that have not yet been examined globally. The study's strength is also due to the rigorous use of PLS-SEM and predictive validation methods.

Implications for both concepts and practices are explored in this study. It outlines how digital marketing helps SMEs grow when collaboration is involved. Practitioners take away a well-defined strategy: forming lively online communities, crowdsourcing innovation projects, and integrating beneficial open innovation. The insights provide policymakers with guidance on planning interventions to enhance the digital engagement and innovation capabilities of small businesses. It may be helpful for future work to investigate whether company size or the segment in which they operate affects these suggestions. Ultimately, this research helps fill important spaces in the literature and provides hard facts that local logistics SMEs can use to succeed in a digitized market.

6. LIMITATIONS AND FUTURE STUDIES

Despite its contributions, this study has several limitations. First, its cross-sectional design limits insights into how digital marketing capabilities influence performance over time. Second, the focus on logistics SMEs in Oman may restrict generalizability to other sectors or regions. Third, relying solely on manager-reported data may introduce bias; future research should incorporate objective performance metrics and perspectives from multiple stakeholders. Additionally, this study did not examine potential moderating factors such as firm size, digital maturity, or external environmental influences, which could enhance the model's explanatory power. Future studies should adopt mixed methods, broader samples, and comparative contexts to deepen understanding of digital transformation in SMEs.

Author contributions: All authors equally contributed to this study
Ethical Statement: Ethical approval for data collection was obtained from Universiti Selangor, Malaysia. Formal written consent was also secured from the managers of the participating SMEs after clearly explaining the purpose of the study. No personal or sensitive information related to the respondents or their businesses is disclosed in this research. As this study forms part of a larger PhD project, only the relevant components approved for publication are included in this paper
Competing Interests: The author declares that this work has no competing interests.
Grant/Funding information: The author declared that no grants supported this work.
Data Availability Statement: The associated data is available upon request from the corresponding author.
Declaration Statement of Generative AI: The authors declare that no generative AI tools were used in the creation of this study, except for language proofreading and polishing purposes only.

REFERENCES

Al Buraiki, A., & Khan, F. R. (2018). Finance and technology: Key challenges faced by small and medium enterprises (SMEs) in Oman. *International Journal of Management, Innovation & Entrepreneurial Research EISSN*, 2395-7662. *4*(2), 1-12. https://doi.org/10.18510/ijmier.2018.421

Al Farsi, K., & Alattar, N. (2021). Examining the Factors that Decrease the Development of Small and Medium Enterprises in Al Batinah Province, Oman. *Applied computing Journal*, 77-90. https://doi.org/10.52098/acj.202133

Algharabat, R. S., & Rana, N. P. (2021). Social commerce in emerging markets and its impact on online community engagement. *Information Systems Frontiers*, *23*, 1499-1520. https://doi.org/10.1007/s10796-020-10041-4

Al Ghunaimi, H., Almaqtari, F. A., Wesonga, R., & Elmashtawy, A. (2025). The Rise of FinTech and the Journey Toward a Cashless Society: Investigating the Use of Mobile Payments by SMEs in Oman in the Context of Vision 2040. *Administrative Sciences*, *15*(5), 178. https://doi.org/10.3390/admsci15050178.

Al Maqbali, K. H., Slimi, Z., & Balasa, A. (2021). The Pros and Cons of artificial intelligence use in the logistics sector in Oman. *European Journal of Business and Management Research*, *6*(4), 197-208. https://doi.org/10.24018/ejbmr.2021.6.4.973

Al Mawli, B., Al Alawi, M., Elazouni, A., & Al-Mamun, A. (2021). Construction SMEs safety challenges in water sector in Oman. *Safety science*, *136*, 105156. https://doi.org/10.1016/j.ssci.2020.105156

Al Qubtan, T. R., & Gan, P. T. (2020). Risk, challenges and opportunities: Insights from small and medium enterprises in Oman. *European Journal of Economic and Financial Research*, *4*(2), 46-62. http://dx.doi.org/10.46827/ejefr.v4i2.855

Alemu, A. E., Hamid, A. A., Fitri, N. S., Rahman, B. A., & AL Wadhahi, Y. S. S. (2021). Teaching nexus to logistics competence and skills: an exploratory study on logistics sector from the perspective of managers in Oman. *Psychology and Education*, *58*(5), 4706-4720.

Alqassabi, M. A. (2020). Insights on sustainability of small and medium enterprises in Oman: a conceptual framework. *International Journal of Economics and Financial Issues*, *10*(1), 209-218. https://doi.org/10.32479/ijefi.9063

Alraja, M. N., Khan, S. F., Khashab, B., & Aldaas, R. (2020). Does Facebook commerce enhance SMEs performance? A structural equation analysis of Omani SMEs. *Sage Open*, *10*(1). https://doi.org/10.1177/2158244019900186

AL-Shboul, M.A. (2019). Towards better understanding of determinants logistical factors in SMEs for cloud ERP adoption in developing economies., *Business Process Management Journal*, Vol. 25 No. 5, pp. 887-907. https://doi.org/10.1108/BPMJ-01-2018-0004.

Al-Shuaili, S., Ali, M., Jaharadak, A. A., & Al-Shekly, M. (2019, March). An Investigate on the Critical Factors that can Affect the Implementation of E-government in Oman. In *2019 IEEE 15th International Colloquium on Signal Processing & Its Applications (CSPA)*, *1*(2), 75-79. IEEE. https://doi.org/10.1109/CSPA.2019.8695988.

Apasrawirote, D., Yawised, K., & Muneesawang, P. (2022). Digital marketing capability: the mystery of business capabilities. *Marketing Intelligence & Planning*, *40*(4), 477-496. https://doi.org/10.1108/MIP-11-2021-0399

Brown, T. (2019). *An evaluation of crowdsourcing as a tool for marketing activities* [Doctoral dissertation, Luleå University of Technology]. https://www.diva-portal.org/smash/record.jsf?pid=diva2:1265218

Chahal, H., & Kaur, J. (2014). Development of marketing capabilities scale in banking sector. *Measuring Business Excellence*, *18*(4), 65-85.

Cheng, C. C., & Huizingh, E. K. (2014). When is open innovation beneficial? The role of strategic orientation. *Journal of Product Innovation Management*, *31*(6), 1235-1253.

de Andrés-Sánchez, J., Musiello-Neto, F., Rua, O. L., & Arias-Oliva, M. (2022). Configurational analysis of inbound and outbound innovation impact on competitive advantage in the SMEs of the Portuguese hospitality sector. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(4), 205-221

Dessart, L. (2017). Social media engagement: A model of antecedents and relational outcomes. *Journal of Marketing Management*, *33*(5-6), 375-399.

Dessart, L., Veloutsou, C.,&Thomas, A. M. (2016). Capturing consumer engagement: Duality, dimensionality and measurement. *Journal of Marketing Management*, *32*(5-6), 399-426.

Flamini, G., Pellegrini, M. M., Fakhar Manesh, M., & Caputo, A. (2022). Entrepreneurial approach for open innovation: opening new opportunities, mapping knowledge and highlighting gaps. *International Journal of Entrepreneurial Behavior & Research*, *28*(5), 1347-1368. https://doi.org/10.1108/IJEBR-01-2021-0079

Gélinas, R., & Bigras, Y. (2004). The Characteristics and Features of SMEs: Favorable or Unfavorable to Logistics Integration? *Journal of Small Business Management*, *42*(3), 263–278. https://doi.org/10.1111/j.1540-627X.2004.00111.x

Gregory, G. D., Ngo, L. V., & Karavdic, M. (2019). Developing e-commerce marketing capabilities and efficiencies for enhanced performance in business-to-business export ventures. *Industrial Marketing Management*, *78*, 146-157. https://doi.org/10.1016/j.indmarman.2017.03.002

Hamed Al-Wahaibi, M. H. (2019). Logistics hubs in Oman and political uncertainty in the Gulf. *Contemporary Review of the Middle East*, *6*(2), 109-153. https://doi.org/10.1177/2347798919832694

Herhausen, D., Miočević, D., Morgan, R. E., & Kleijnen, M. H. (2020). The digital marketing capabilities gap. *Industrial Marketing Management*, *90*, 276-290. https://doi.org/10.1016/j.indmarman.2020.07.022

Homburg, C., & Wielgos, D. M. (2022). The value relevance of digital marketing capabilities to firm performance. *Journal of the Academy of Marketing Science*, *50*(4), 666-688. https://doi.org/10.1007/s11747-022-00858-7.

Ibarra, D., Bigdeli, A. Z., Igartua, J. I., & Ganzarain, J. (2020). Business model innovation in established SMEs: A configurational approach. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(3), 76-84. https://doi.org/10.3390/joitmc6030076

Jankalová, M., & Jankal, R. (2020). How to characterize business excellence and determine the relation between business excellence and sustainability. *Sustainability*, *12*(15), 6198. https://doi.org/10.3390/su12156198

Kanda, W., del Río, P., Hjelm, O., & Bienkowska, D. (2019). A technological innovation systems approach to analyze the roles of intermediaries in eco-innovation. *Journal of Cleaner Production*, *227*, 1136-1148. https://doi.org/10.1016/j.jclepro.2019.04.230

Kant, M., & Kanda, W. (2019). Innovation intermediaries: What does it take to survive over time?. *Journal of Cleaner Production*, *229*, 911-930. https://doi.org/10.1016/j.jclepro.2019.04.213

Kapoor, R., & Kapoor, K. (2021). The transition from traditional to digital marketing: a study of the evolution of e-marketing in the Indian hotel industry. *Worldwide Hospitality and Tourism Themes*, *13*(2), 199-213. https://doi.org/10.1108/WHATT-10-2020-0124

Khan, E. A. (2017). An investigation of marketing capabilities of informal microenterprises: A study of street food vending in Thailand. *International Journal of Sociology and Social Policy*, *37*(3/4), 186-202. https://doi.org/10.1108/IJSSP-09-2015-0094

Larsson, Z. Y., Di Gangi, P. M., & Teigland, R. (2019). Sharing my way to success: A case study on developing entrepreneurial ventures using social capital in an OSS community. *Information and Organization*, *29*(1), 23-40. https://doi.org/10.1016/j.infoandorg.2018.12.001

Lim, S. T., Preis, M. W., Lee, C. K., Vincent. M., & Kim, M. J. (2020): The influence of open innovation activities on non-financial performance in the cultural tourism content industry, *Current Issues in Tourism*, *17*(5), 1-5. https://doi.org/10.1080/13683500.2020.1754356

Luo, T., Freeman, C., & Stefaniak, J. (2020). "Like, comment, and share" professional development through social media in higher education: A systematic review. *Educational Technology Research and Development*, *68*(4), 1659-1683. https://doi.org/10.1007/s11423-020-09790-5

Martinez, E. V., Serna, C. M., & Guzman, G. M. (2018). The relationship between market orientation, entrepreneurial orientation and learning orientation on innovation and its effect on performance in Mexican SMEs. *International Business Management*, *12*(2), 132-144.

Mishra, N., Gupta, S., & Savastava, A. B. (2020). Influence of social media on purchase intention: A study of consumers in Oman. *The Indian Journal of Commerce*, *73*(3), 77-91.

Moradi, E., Jafari, S. M., Doorbash, Z. M., & Mirzaei, A. (2021). Impact of organizational inertia on business model innovation, open innovation and corporate performance. *Asia Pacific Management Review*, *26*(4), 171-179. https://doi.org/10.1016/j.apmrv.2021.01.003

Murray, J. Y., Gao, G. Y., & Kotabe, M. (2011). Market orientation and performance of export ventures: The process through marketing capabilities and competitive advantages. *Journal of the Academy of Marketing Science*, 39(2), pp. 252-269.

Muthuraman, S. (2024). Enhancing SME impact on Economic Development in Sultanate of Oman. *Journal of Management World*, *2024*(4), 333-339. https://doi.org/10.53935/jomw.v2024i4.396

Nam, H., & Kannan, P. K. (2020). Digital environment in global markets: Cross-cultural implications for evolving customer journeys. *Journal of International Marketing*, *28*(1), 28-47. https://doi.org/10.1177/1069031X19898767

Naradda Gamage, S. K., Ekanayake, E. M. S., Abeyrathne, G. A. K. N. J., Prasanna, R. P. I. R., Jayasundara, J. M. S. B., & Rajapakshe, P. S. K. (2020). A review of global challenges and survival strategies of small and medium enterprises (SMEs). *Economies*, *8*(4), 79. https://doi.org/10.3390/economies8040079

Nizar, A. S. A., & Matriano, M. T. (2022). The Challenges and Opportunities in SCL Optimization of SME Cargo Companies in Muscat, Oman. *GSJ*, *10*(8).

Ober, J. (2022). Open innovation in the ICT industry: Substantiation from Poland. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(3), 158. https://doi.org/10.3390/joitmc8030158

Prasanna, R. P. I. R., Jayasundara, J. M. S. B., Naradda Gamage, S. K., Ekanayake, E. M. S., Rajapakshe, P. S. K., & Abeyrathne, G. A. K. N. J. (2019). Sustainability of SMEs in the competition: A systemic review on technological challenges and SME performance. *Journal of Open Innovation: Technology, Market, and Complexity*, *5*(4), 100. https://doi.org/10.3390/joitmc5040100

Raymond, L., & St-Pierre, J. (2013). Strategic capability configurations for the internationalization of SMEs: A study in equifinality. *International Small Business Journal*, *31*(1), 82-102. https://doi.org/10.1177/0266242610391325

Raymond, L., St-Pierre, J., Fabi, B., & Lacoursière, R. (2010). Strategic capabilities for the growth of manufacturing SMEs: A configurational perspective. *Journal of Developmental Entrepreneurship*, *15*(02), 123-142. https://doi.org/10.1142/S1084946710001476

Richard, E. E., Davis, J. R., Paik, J. H., & Lakhani, K. R. (2019). Sustaining open innovation through a "Center of Excellence". *Strategy & Leadership*, *47*(3), 19-26. https://doi.org/10.1108/SL-02-2019-0031

Sağtaş, S. (2022). The effect of social media marketing on brand equity and consumer purchasing intention. *Journal of Life Economics*, *9*(1), 21-31.

Sisodiya, S. R., Johnson, J. L., & Grégoire, Y. (2013). Inbound open innovation for enhanced performance: Enablers and opportunities. *Industrial Marketing Management*, *42*(5), 836-849.

Shukri, A. N. A., & Ismail, S. (2023). Critical Success Factors for Sustainable Marketing: A Strategical Framework Using Key Performance Indicators in Small and Medium Enterprises (SMEs) Businesses in Oman. *International Journal of Academic Reserach in Economics and Management Sciences*, *12*(4). E-ISSN: 2226-3624 http://dx.doi.org/10.6007/IJAREMS/v12-i4/19573

Tarsakoo, P., & Charoensukmongkol, P. (2020). Dimensions of social media marketing capabilities and their contribution to business performance of firms in Thailand. *Journal of Asia Business Studies*, *14*(4), 441-461.

Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources-based view. *Industrial Marketing Management*, *89*, 89-97. https://doi.org/10.1016/j.indmarman.2020.03.003

Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, *69*(1), 80-94.

Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing, 11*(1), 15-35.

Wiederhold, B. K. (2020). Social media and social organizing: From pandemic to protests. *Cyberpsychology, Behavior, and Social Networking*, *23*(9), 579-580. https://doi.org/10.1089/cyber.2020.0461

Xu, Y., Ribeiro-Soriano, D. E., & Gonzalez-Garcia, J. (2015). Crowdsourcing, innovation and firm performance. *Management Decision*, *53*(6), 1158-1169.

Zehir, C., Gurol, Y., Karaboga, T., & Kole, M. (2016). Strategic human resource management and firm performance: The mediating role of entrepreneurial orientation. *Procedia - Social and Behavioral Sciences*, *235*(1), 372-381. https://doi.org/10.1016/j.sbspro.2016.11.045

Zhang, H., Gupta, S., Sun, W., & Zou, Y. (2020). How social-media-enabled co-creation between customers and the firm drives business value? The perspective of organizational learning and social Capital. *Information & Management*, *57*(3), 103200. https://doi.org/10.1016/j.im.2019.103200

Zhang, J. (2022). Knowledge learning with crowdsourcing: A brief review and systematic perspective. *IEEE/CAA Journal of Automatica Sinica*, *9*(5), 749-762. http://doi.org/10.1109/JAS.2022.105434.

Appendix 1.

1. Gender	
☐ Male	☐ Female
2. Age Group	
☐ 20 – 29 years	☐ 30 – 39 years
☐ 40 – 49 years	☐ 50 years and above
3. Educational Background	
☐ Diploma	☐ Bachelor Degree
☐ Master Degree	☐ PhD
4. Position in the Company	
☐ Founder / Chief Executive Officer	☐ Chief Operating Officer
☐ Manager	☐ Executive
5. Managerial Experience	
☐ Less than 5 years	☐ 6 – 10 years
☐ 11 – 15 years	☐ 16 – 20 years
☐ 21 years and above	
6. Number of Employees (Approximately) in the Company	
☐ Less than 10 employees	☐ 11 to 50 employees
☐ 51 to 150 employees	☐ More than 150 employees
7. Years of Operating	
☐ Less than 5 years	☐ 5 – 10 years
☐ 11 – 15 years	☐ 16 – 20 years
☐ 21 – 25 years	☐ More than 25 years
8. Location of Business Operation	
☐ Muscat	☐ Port of Salalah
☐ Port of Duqm	☐ Sohar Port
☐ Freezone	☐Other (please specify:

1	**2**	**3**	**4**	**5**
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Financial Performance *Compared to the past 3 years, …*		**Scale**				
		1	**2**	**3**	**4**	**5**
FP1	my company has achieved financial success of new products.	1	2	3	4	5
FP2	the average net profitability compared to equity is increased.	1	2	3	4	5
FP3	net profitability before tax compared to all available resources is increased.	1	2	3	4	5
FP4	net revenue is achieved from basic operations.	1	2	3	4	5
FP5	the average annual sales is increased.	1	2	3	4	5
FP6	The overall success level in financial terms is increased.	1	2	3	4	5

Internal Non-Financial Performance		Scale				
		1	**2**	**3**	**4**	**5**
INFP1	I feel attached to my company.	1	2	3	4	5
INFP2	My company shares information well among employees.	1	2	3	4	5
INFP3	If defects are found in products/services, my company thoroughly analyses the defects to improve quality.	1	2	3	4	5
INFP4	Overall, I am satisfied with my company's non-financial performance.	1	2	3	4	5
INFP5	My company has mutual trust between departments.	1	2	3	4	5

External Non-Financial Performance		Scale				
		1	**2**	**3**	**4**	**5**
ENFP1	My company's customers are satisfied with our products/services.	1	2	3	4	5
ENFP2	My company's brand awareness and image are improving.	1	2	3	4	5
ENFP3	My company has high customer loyalty due to employee's honesty and fairness.	1	2	3	4	5
ENFP4	My company has an increasing number of customers.	1	2	3	4	5
ENFP5	My company has steadily secured new customers.	1	2	3	4	5

SECTION C: DIGITAL MARKETING CAPABILITY

Social Media Product Development Capability		Scale				
		1	**2**	**3**	**4**	**5**
PDC1	My company can speedily develop new product / service by using social media.	1	2	3	4	5
PDC2	My company can speedily introduce new product by using social media.	1	2	3	4	5
PDC3	My company manage overall new product development systems by using social media.	1	2	3	4	5
PDC4	My company successfully launch new products by using social media.	1	2	3	4	5
PDC5	My company can develop product/service responsively to customer needs by using social media.	1	2	3	4	5

Digital Marketing Planning Capability		Scale				
		1	**2**	**3**	**4**	**5**
MPC1	I have superior digital marketing planning skills.	1	2	3	4	5
MPC2	My company can set clear digital marketing goals.	1	2	3	4	5
MPC3	My company can develop creative digital marketing strategies.	1	2	3	4	5
MPC4	My company can segment and target market effectively using social media.	1	2	3	4	5
MPC5	My company have thorough digital marketing planning process.	1	2	3	4	5

Digital Marketing Communication Capability		Scale				
		1	**2**	**3**	**4**	**5**
MCC1	My company skilfully use social media for marketing communications programs.	1	2	3	4	5
MCC2	My company use digital marketing communication skills and processes well.	1	2	3	4	5
MCC3	My company effectively manage digital marketing communication programs.	1	2	3	4	5
MCC4	My company effectively manage corporate image and reputation by using social media.	1	2	3	4	5

Digital Marketing Implementation Capability		Scale				
		1	**2**	**3**	**4**	**5**
MIC1	My company can allocate digital marketing resources effectively.	1	2	3	4	5
MIC2	My company can effectively deliver digital marketing programs.	1	2	3	4	5
MIC3	My company can translate digital marketing strategies into action effectively.	1	2	3	4	5
MIC4	My company can quickly execute digital marketing strategies.	1	2	3	4	5
MIC5	My company can monitor digital marketing performance.	1	2	3	4	5

SECTION D: ONLINE COMMUNITY ENGAGEMENT

Affective Engagement		Scale				
		1	2	3	4	5
AE1	This community makes me feel enthusiastic.	1	2	3	4	5
AE2	This community makes me feel interested about their topics.	1	2	3	4	5
AE3	I find this community interesting.	1	2	3	4	5
AE4	This community makes me feel happy when I interact with them.	1	2	3	4	5
AE5	This community makes me feel pleasure when I interact with them.	1	2	3	4	5
AE6	Interacting with this community gives me a treat.	1	2	3	4	5

Cognitive Engagement		Scale				
		1	2	3	4	5
CE1	I devote a lot of time to thinking about this community.	1	2	3	4	5
CE2	I spend time thinking about this community.	1	2	3	4	5
CE3	While interacting with my community members, I usually forget everything else around me.	1	2	3	4	5
CE4	Time flies when I am interacting with my community.	1	2	3	4	5
CE5	When I am interacting with this community, I get carried away.	1	2	3	4	5
CE6	When interacting with my community, it is difficult to separate myself.	1	2	3	4	5

Behavioural Engagement		Scale				
		1	2	3	4	5
BE1	I share my thoughts with my community.	1	2	3	4	5
BE2	I share exciting content with my community.	1	2	3	4	5
BE3	I help my community.	1	2	3	4	5
BE4	I ask my community questions.	1	2	3	4	5
BE5	I pursue ideas or information from my community.	1	2	3	4	5
BE6	I ask for help from my community.	1	2	3	4	5
BE7	I endorse my community.	1	2	3	4	5
BE8	I ask other people to get involved with my community.	1	2	3	4	5
BE9	I strongly protect my community from its rivals.	1	2	3	4	5
BE10	I say positive things about my community to others.	1	2	3	4	5

SECTION E: CROWDSOURCING

Crowdsourcing		Scale				
		1	**2**	**3**	**4**	**5**
CS1	My company has introduced platforms to develop ideas about new products/services.	1	2	3	4	5
CS2	Customers can freely express their ideas about the introduction of new innovations in my company.	1	2	3	4	5
CS3	My company considers that a group of users can develop new ideas about new products/services or to improve the existing ones.	1	2	3	4	5
CS4	There are financial and non-financial incentives to develop the best ideas.	1	2	3	4	5
CS5	My company has evaluation systems to know the effectiveness of the ideas developed.	1	2	3	4	5
CS6	There are knowledge transfer systems to disseminate the best ideas.	1	2	3	4	5
CS7	My company uses virtual communities to develop new products or services.	1	2	3	4	5
CS8	New ideas take into account the stakeholders of the company.					

SECTION F: OPEN INNOVATION

Inbound Open Innovation		Scale				
		1	**2**	**3**	**4**	**5**
IOI1	My company constantly scan the external environment for inputs such as technology, information, ideas, and knowledge.	1	2	3	4	5
IOI2	My company actively seek external sources (e.g., research groups, universities, suppliers, customers, competitors, etc.) of knowledge and technology when developing new products.	1	2	3	4	5
IOI3	My company believe it is good to use external sources (e.g., research groups, universities, suppliers, customers, competitors) to complement our own R&D.	1	2	3	4	5
IOI4	My company often brings in externally developed knowledge and technology for use in conjunction with our own R&D.	1	2	3	4	5
IOI5	My company seek out technologies and patents from other firms, research groups, or universities.	1	2	3	4	5
IOI6	My company purchase external intellectual property for use in our own R&D.	1	2	3	4	5

Outbound Open Innovation		Scale				
		1	**2**	**3**	**4**	**5**
OOI1	My company often sell/give knowledge (patents, copyrights, and other outputs) to other firms to better benefit from innovation efforts.	1	2	3	4	5
OOI2	My company often offer agreements to other firms to better benefit from our innovation efforts.	1	2	3	4	5
OOI3	My company strengthens every possible use of rights to better benefit our firm.	1	2	3	4	5
OOI4	My company finds spin-offs that benefit better from our innovation efforts.	1	2	3	4	5
OOI5	My company innovation projects are less dependent on the contributions of external partners than on ours.	1	2	3	4	5

Vol.3, Issue.1, (2025)
International Journal of Management Thinking
https://doi.org/10.56868/ijmt.v3i1.90

Insights into Workplace Coaching for Navigating Stress: Supporting Employees Through Organizational Change

Mehdi Ebrahimi

Central Queensland University, School of Business and Law Australia

Article Information

Article Type: Research Article

Dates:
Received: March 14, 2025
Revised: May 21, 2025
Accepted: May 24, 2024
Available online: July 03, 2024

Corresponding Author:

Mehdi Ebrahimi
m.ebrahimi@skillsacademia.org
https://orcid.org/0009-0003-7807-5045

ABSTRACT

Change and turbulence in organizations often result in increased employee stress, job insecurity, and uncertainty, emphasizing the need for effective support strategies. This study explores whether workplace coaching is perceived as a valuable tool for alleviating work-related stress and job insecurity during periods of organizational change. This paper reports on a subset of quantitative data collected as part of a larger study within Australian rail organizations, focusing on survey responses regarding employees' perceptions of coaching. Of the 128 randomly selected rail organisations invited to participate online, 52 returned completed surveys, yielding a 40.6 percent response rate. Findings suggest that both internal and external coaching are widely used within these organizations. Additionally, it was revealed that coaching practices are generally perceived as helpful in reducing stress and offering support during times of change. The study also highlights that change can lead to significant uncertainty for employees. As this study relies on self-reported perception data and does not measure actual stress levels before and after coaching interventions, the results should be interpreted as indicative rather than conclusive. Despite these limitations, the findings contribute to the ongoing scholarly discourse on workplace coaching by offering insights into how employees in a change-intensive industry perceive coaching as a resource for navigating work-stress and uncertainty. The study also provides preliminary implications for organization's seeking to integrate coaching into broader employee support, capacity-building, and change management strategies during periods of change.

Keywords: Workplace Coaching, Work-Related Stress, Employee Support, Organizational Development, Managing Change

1. INTRODUCTION

Employees' work-related stress, one of the potential psychological effects of frequent changes and restructures in the workplace, has been documented by various authors in the literature (Fløvik et al., 2019; Jian, 2007; Li et al., 2017). This type of stress has the potential to significantly impact employee performance and wellbeing (Raudeliunaite & Volff, 2020; Tran et al., 2020; Tsutsumi et al., 2009). While some studies have highlighted the positive role that co-worker and peer support play in mitigating employee stress (Geldart et al., 2018; Yang et al., 2015). While many have highlighted the advantages of employee assistance programs (Arthur, 2000; Milot & Borkenhagen, 2018), the potential of workplace coaching in this context remains relatively unexplored.

This may be linked to the fact that, since the inception of the first generation of workplace coaching approaches in the 1990s, only about three decades have passed (Grant, 2016). Additionally, organizational coaching research is still considered a relatively new field. Change in the organisational context can trigger a range of emotions, both negative, such as stress, and positive, like hope and satisfaction (Helpap & Bekmeier-Feuerhahn, 2016). When these changes are perceived negatively, they often have an adverse effect on well-being and can lead to pathological symptoms, affecting both employees and the workplace (Huflejt-Łukasik et al., 2022; Pasieczny, 2017). Factors such as an employee's psychological capital, including hope, efficacy, optimism, and resilience (Avey et al., 2008), perceived organisational support (Srivastava & Agrawal, 2020), and an employee's perception of fairness in change management (Georgalis et al., 2015), impact employee behaviour, emotions, and intentions to resist change (Rahman et al., 2021).

Moreover, uncertainty and job insecurity, both potential consequences of organisational change, result in psychological strain (Bordia et al., 2004) and affect employee engagement, job satisfaction, performance, and wellbeing (Asfaw & Chang, 2019; Gorgenyi-Hegyes et al., 2021; Nemteanu et al., 2021). Employees' ability to cope with uncertainty (Seikkula-Leino & Salomaa, 2020) and navigate potential negative consequences of change and restructure is of significant importance. What remains a major challenge is the presence of work-related stress amid uncertainty and the complex dynamics of change, impacting employees and leading to issues such as reduced productivity and emotional exhaustion (de Vries & de Vries, 2023).

Workplace coaching is an emerging area of research, and although it is gaining increasing attention, several scholars have raised concerns about the scarcity of empirical studies in this domain (Cannon-Bowers et al., 2023; Jones et al., 2016; Silzer et al., 2016). Therefore, contributing to empirical and scholarly discourse is crucial to address this gap. Workplace coaching has been reported to be effective in helping employees reduce workplace stress (Avey et al., 2008; Ladegard, 2011; Shimazu et al., 2005), resolve a lack of hope (Leach et al., 2011), and increase self-esteem (Whitmore, 2002; Zeus & Skiffington, 2001). Gyllensten and Palmer (2005) have highlighted a notable benefit of workplace coaching by suggesting that "coaching may help to reduce stress directly if an individual is seeking coaching to deal with stress" (p.16). This notion is also supported by other studies that have proposed the need for providing coping tools to manage work-related stress and have recommended workplace coaching, which they describe as "a method for learning and development" as a potentially effective response to this need (Ladegård, 2011, p. 29).

Workplace coaching remains an emerging area of research and practice. Given that most organisations experience change, expansion or downsizing, which can negatively affect employee wellbeing, work life balance, performance and productivity, it is important to highlight how coaching is perceived in relation to managing stress and the side effects of organisational change. The objective of the present study is to explore how workplace coaching is perceived in terms of its potential to reduce employee stress during periods of ongoing change and uncertainty. This study is part of a larger research project that employed a mixed methods research (MMR) approach. The initial two phases of the study, quantitative and qualitative, previously suggested that coaching helped to promote positive behaviour and increase employee motivation in the face of change.

This aligns with the existing literature, which has confirmed that coaching can assist employees in developing and adapting new positive behaviours (Bickerich et al., 2018; Pousa & Mathieu, 2015; Rolfe, 2010). Previous findings also suggested that confidentiality and trust are considered key factors in building an effective coach-client relationship in internal coaching (Ebrahimi, 2024a)

This paper primarily focuses on a subset of results from the quantitative phase of data collection conducted in Phase 3 of the larger study. The results section also includes a brief overview of Phases 1 and 2 of the data collection. It is essential to note that, although this paper discusses coaching in the context of change and uncertainty within organisations, it cannot provide a comprehensive review of the organisational change literature due to limitations, including word count constraints.

2. LITERATURE REVIEW

Building upon established knowledge and theories has been a long-standing practice essential for advancing research, refining theoretical frameworks, and guiding future empirical studies (Merton, 1968). This section reviews the literature, followed by an exploration of theoretical perspectives, methods, results, and a discussion of the findings.

2.1 Stressors, Change and the Multifaceted Nature of Employee Stress

The American Psychological Association's (APA), 2017 work and wellbeing survey highlights the interplay between change and instability in organisations and chronic work stress among employees. According to APA (2017), the online survey, distributed to 1,500 individuals working in various contract and ongoing capacities in the United States, showed that those working in organizations currently undergoing change or having recently undergone change were more than twice as likely to experience chronic work stress compared to those in organisations with no recent or ongoing changes (55.0% vs. 22.0%). Notably, APA's (2021) survey, which explored employee stress and workplace experiences during the COVID-19 pandemic, reported that individuals who regularly felt tense or stressed during the workday were more than three times as likely to express intentions of seeking alternative employment within the next year (71.0% vs. 20.0%).

The World Health Organization (2020) defines work-related stress as employees' response to work pressure and job demands that exceed their competencies, knowledge, and abilities. Shahsavarani et al. (2015) provide a more comprehensive occupational perspective by defining occupational stress as "an imbalance between the mental and emotional levels of an individual in the workplace. In psychological sciences, stress is a feeling of mental pressure and tension" (p. 230). Work-related psychosocial factors, such as poor organizational climate, inadequate leadership and supervision, job insecurity, and uncertainty about job future, can contribute to the deterioration of employees' mental health (Bonde, 2008; Bronkhorst et al., 2015; Hassard et al., 2017; Netterstrøm et al., 2008).

Within an organizational context, factors like job insecurity (Adam & Flatau, 2006; Schumacher et al., 2015) and work-related psychological stress (Smollan, 2015) impact the health and wellbeing of employees (Backé et al., 2012; Tsutsumi et al., 2009; LaMontagne et al., 2007). Some studies have specifically identified chronic work-related stress as a significant predictor of physical consequences, including hypercholesteremia (high cholesterol), prolonged fatigue, headaches, and gastrointestinal issues (Salvagioni et al., 2017), among other health and wellbeing consequences of persistent work-related stress.

A study by Otto et al. (2017), based on longitudinal data from 673 employees in the finance sector in Germany, demonstrated that organizational change, combined with abusive leadership behaviour and poor supervision, increased job insecurity and reduced employees' ability to cope with change, thereby impacting their wellbeing.

The intricate and multifaceted nature of rapid and frequent organisational changes reveals a complex landscape in which factors, including employees' lack of trust in management, job insecurity, and their intentions to leave the organisation, intertwine (Ferrie et al., 2002; Isaksson et al., 2002; Moore et al., 2004; Wagstaff et al., 2016). In a comprehensive study, Fløvik et al. (2019) examined 66 Norwegian organisations across diverse public and private sectors, professions, and company sizes to assess the impact of organisational change on employees. The results revealed that repeated organisational changes contributed to uncertainty, depleted employees' coping resources, and significantly diminished their sense of job predictability and future employability. Other studies have highlighted the concept of 'change fatigue,' which arises from repeated organisational changes and restructures, leading to employee emotional exhaustion and stress, primarily due to the accompanying uncertainty (de Vries & de Vries, 2023).

There are many studies that have explored the effects of work-related stress on performance, productivity and job satisfaction (Iskamto, 2021; Daniel, 2019; Shahu & Gole, 2008; Rizwan et al., 2014). Employees' sense of predictability regarding both present and future job prospects could also be affected by exposure to extensive workplace changes (Probst, 2003; Baillien & De Witte, 2009). Change naturally involves some degree of uncertainty regarding the outcome and future. As Callan (1993) indicated wisely that while promoting healthy response is of significant importance, not many organisations fully acknowledge their role to support their employees in the face of change.

Some recent studies in the context of changes in the workplace caused by the global COVID-19 pandemic also highlight the significant role of leaders, co-workers and organisational support to help employees deal with change more effectively (Da et al., 2022; Lee, 2021). So far, the workplace coaching literature indicates that workplace coaches can play an important role to equip managers and leaders with coaching skills (Grant, 2016) and "buffer the negative consequences that changes may have on an individual" (Huflejt-Łukasik et al., 2022, p.1).

The sources of stress, often referred to as stressors, can vary based on the organisation, industry, role, work environment, and specific context (Park & Min, 2020; Maqsoom et al., 2020). For instance, whether an employee works in an organisation undergoing frequent changes and the level of support provided by management during these times can influence severity and experiences of work-related stress. Moreover, the literature indicates that responses to stress can manifest in three primary domains: 1) emotional responses, encompassing feelings of anxiety, depression, worry, tension, and fatigue; 2) behavioural reactions, which may include withdrawal, aggression, and demotivation; and 3) cognitive effects, leading to reduced performance capacity and difficulties in concentration (Cooper, 1987; Michie, 2002).

Expanding on the facets discussed above, the significance of emotions and their interplay with human behaviour within organisations, as well as their implications for employee stress, performance, and overall wellbeing, has been the subject of extensive exploration by many researchers (Ashkanasy & Daus, 2002; Ashkanasy & Dorris, 2017; Muchinsky, 2000). Furthermore, the literature suggests that individuals possessing elevated emotional intelligence, characterised by traits such as heightened self-awareness and the capacity to discern the emotions of others, may be better equipped to effectively manage work-related stress (Arora, 2017). If we consider stress a threat to wellbeing, as proposed by Raudeliunaite and Volff (2020), mitigating stress should potentially help to improve wellbeing. As LaMontagne et al. (2014) point out, what is important here is that wellbeing does not refer to the absence of the negative; instead, wellbeing is most correctly defined and measured as the presence of positive feelings and well-functioning (p. 4).

As suggested by previous research on positive emotions (Diener et al., 2020; Seligman & Csikszentmihalyi, 2000), the potential effectiveness of workplace coaching in mitigating employee stress raises the prospect of positive individual and organisational outcomes, thus warranting further investigation.

As discussed earlier, changes in organisations can yield both positive and negative reactions, with the latter often impacting employee wellbeing and performance. Given that the association between psychological strains, uncertainty, and job insecurity has been confirmed by other scholars (Bordia et al., 2004) and the notion that coaching interventions can be effective in buffering individuals from stress (Creswell et al., 2005), it is reasonable to question whether coaching is perceived as a viable approach to mitigate work-related stress.

It is essential to acknowledge that other effective methods of assistance, such as workplace-based counselling and psychotherapeutic interventions for stress management (Riedel et al., 2017), have been widely utilised and proven to be beneficial (Arthur, 2000; Riedel et al., 2017). However, as Ladegård (2011) has pointed out, while stress management interventions may be employed for individuals with clinical levels of stress, coaching interventions, aimed at helping clients acquire skills, insights, and support, can be effective for non-clinical populations.

2.2 Workplace Coaching as Helping Intervention

Coaching considered as a science rather than an art (Passmore & Tee, 2020) has been defined in various ways by different scholars and practitioners. It is often described as a facilitation approach focused on "unlocking a person's potential to maximize their own performance" (Whitmore, 1992, p3). Coaching is also described as a developmental intervention (Grover & Furnham, 2016), or as an approach with a focus on "enhancing both the performance and the well-being of individuals and organisations" (Grant, 2016, p.1).

Workplace coaching is generally provided in two forms: internal or external, or a combination of both. Internal coaches are staff members of the organisation where they work and provide coaching to their colleagues for their individual and professional growth (Ebrahimi, 2024b, Frisch, 2001; John-Brooks, 2014). External coaches, on the other hand, are independent practitioners from outside organisations who are contracted to provide coaching for a specific duration based on contractual obligations (Nicolau et al., 2023).

While there are perceived advantages and disadvantages in each approach (Schalk & Landeta, 2017), particularly depending on the context, it can be said that internal coaches are comparable to external coaches, with the exception that they work in the same organisation as their coachee (Carter, 2005). This article does not intend to explore or identify the distinctions between the two. Rather, for the purpose of this article, both internal and external coaching are considered as forms of workplace coaching.

Some studies have also emphasised the role of coaching in facilitating and fostering learning, as well as the acquisition of new skills and knowledge (Fillery-Travis & Lane, 2006; Kilburg, 1996; Morris, 2000; Yip et al., 2020). For instance, Ladegård (2011) conducted a study to investigate the influence of learning experiences and the acquisition of new skills and insights through coaching on an individual's ability to manage stress. The study included a sample population of 56 individuals who received 10 coaching hours over a 3-month period, aimed at helping them manage work-related stress. The study was theoretically underpinned by self-regulation theory, with a focus on the impact of coaching on stress through learning experiences, particularly emphasising insight and planning skills.

The results demonstrated that planning skills, acquired through coaching, were particularly effective in reducing work-related stress in the short term. Among various coaching approaches, Cognitive Behavioural Coaching (CBC) has gained attention as a structured, evidence-based methodology that integrates principles of cognitive behavioural therapy (CBT) into non-clinical coaching contexts (Neenan & Palmer, 2001). CBC is derived from the foundational work of Beck (1976) and Ellis (1994), and is grounded in the principles and practices of CBT. Related frameworks, such as Cognitive Behavioural Stress Management Coaching (CBSC), aim to improve coping strategies through self-reflection (Traut-Mattausch et al., 2021), aligning closely with Ladegård's (2011) findings, which demonstrated positive outcomes for individuals who received coaching to help manage work-related stress. At the core of these coaching methodologies and theoretical approaches is the process of learning new skills and enhancing emotional awareness, self-regulation and coping mechanisms.

It is essential to recognize that learning is a multifaceted process, and one of the key influencers of learning is emotions (Pekrun, 2011). In this context, workplace coaching becomes even more crucial as a helping intervention in organizations characterized by turbulence, transitions, changes, and restructuring. These changes increase the pressure on learning (Davachi et al., 2010), and learning under stress presents numerous challenges and difficulties (Vogel & Schwabe, 2016; Shors, 2004). Therefore, it can be proposed that if workplace coaching reduces work-related stress, it may, in turn, improve learning, among other benefits that coaching is known to offer.

While earlier studies have suggested that coaching helps foster resilience (Taylor, 1997), increase cognitive hardiness, mental health, and hope (Green et al., 2007), enhance goal commitment and goal attainment (Spence & Grant, 2007), reduce depression and stress, and assist clients in dealing with organisational change (Grant et al., 2009), the scholarly literature regarding the utility of workplace coaching to help employees manage stress in the face of change and uncertainty remains in its nascent stage, with limited scholarly attention directed toward this intriguing area.

David et al. (2016) conducted a study with 59 middle and top managers in the banking sector who received coaching. The results showed that coaching was effective in improving their performance and in managing their distress and depressed mood. Managing stress and the ability to meet key performance indicators and achieve individual and organisational goals are crucial for sustaining both individual and organisational effectiveness. Berg et al. (2008) conducted a study and distributed a survey questionnaire to 1141 white-collar workers in the commercial services industry, revealing evidence that work ability was associated with psychosocial factors at work, such as teamwork, stress handling, and self-development. It is important to note that the authors elaborated the concept of work ability, which was based on the assumption that "work ability is determined by an individual's perception of the demands at work and the ability to cope with them" (Berg et al., 2008, p.1029).

Workplace coaching as a developmental intervention (Grover & Fernham, 2016) with and with a focus "on enhancing both the performance and the wellbeing of individuals and organisations" (Grant, 2016, p.1) and with a potential to be utilised as a tool to improve coping (Quiun, 2018) and teamwork performance (Aldrin & Utama, 2019) may also support work ability of individuals which is important particularly under distressing, challenging and uncertain times of change and restructure.

2.3 Theoretical Perspectives

To better understand the role of workplace coaching in reducing work-related stress during organizational change, several key theoretical perspectives offer valuable insights into the mechanisms that underpin coaching's effectiveness. Cognitive Appraisal Theory, advanced in 1966 by psychologist Richard Lazarus, focuses on how individuals assess and respond to stressors (Lazarus & Folkman, 1984). This theory, in organisational context, helps understand highlight how employees appraise organizational change as a threat or challenge and how coaching can help reframe these perceptions to reduce stress.

Similarly, the theory of Psychological Capital (PsyCap) encompasses key elements such as self-efficacy, hope, resilience, and optimism (Wang et al., 2022), which can be crucial for navigating periods of change. While this theory itself does not directly link to coaching, it underscores the importance of fostering these positive psychological attributes within the workforce. In this light, coaching can play a supportive role in enhancing PsyCap, thereby empowering employees to better manage uncertainty and stress during change and organisational transitions. Another relevant perspective is Self-Regulation Theory, which examines how individuals manage their thoughts, emotions, and behaviors. This theory aligns with existing behavioral, cognitive, and cognitive-behavioural models of adaptation, but it also extends beyond them by outlining the problem-solving and action-oriented processes that facilitate optimal adjustments and maximise outcomes (Mithaug, 1993).

In this context, coaching can aid in developing self-regulation skills (Mühlberger et al., 20245), enabling employees to cope more effectively with stress, achieve optimal adjustment, maintain motivation, and achieve performance goals. Other theories such as Job Demands-Resources (JD-R) Theory also explain how job demands can lead to strain, while job resources (e.g., workplace coaching) can help mitigate these demands and promote employee resilience, wellbeing and productivity (Taris & Schaufeli, 2015). Similarly, the Job-Demand-Control-Support (JDCS) model offers valuable insights into managing workplace stress by demonstrating how high job demands can lead to employee stress (Karasek & Theorell, 1990), which can be mitigated through increased autonomy, support tools and interventions, and assistance from supervisors and colleagues (e.g. internal coaches, peer coaches).

3. METHODOLOGY

The present study, a constituent of a larger research project that employed a Mixed Methods Research (MMR) approach. The research question guiding this study was based on what effect can coaching have on behavior during corporate restructure? This paper focuses on the aspect of how coaching was perceived to mitigate stress and uncertainty during organisational change, a key component of behavioral outcomes explored within the broader project.The larger study encompassed three phases of data collection (Ebrahimi, 2016). Ethics approval was obtained from the institutional ethics committee and informed consent was obtained from all individual participants included in the study.

The first phase involved quantitative data collection using an online survey instrument to conduct a general assessment of coaching activities in rail organization’s across Australia. A simple random sampling method was utilised in both quantitative phases of this study. In the second phase, qualitative, semi-structured interviews were conducted with 25 participants from two of the largest rail organizations in the country. The third phase, which is the main focus of this paper, involved the collection of quantitative data through an online survey questionnaire.

Results based on a subset of data from the third phase of data collection are reported in this paper. In Phase 3 of data collection, organizations were selected via simple random sampling from a comprehensive list of rail companies. An email invitation was sent to 128 randomly-selected organizations; 52 replied (40.6% response rate). Although the sampling frame was random, the analyzed dataset represents a self-selected subset of responders and may be subject to non-response bias. The survey instrument was piloted internally first to identify whether the questions were clear, well-understood, and free of ambiguity. Piloting allowed to assess whether the survey was too long or too short, and whether the questions were logically structured and didn't lead to response bias. The survey employed a "self-completion" method (Hair et al., 2003) and was delivered via email. Data analysis, a crucial process that informs decision-making (Hellerstein, 2008), was conducted using the Statistical Package for the Social Science (SPSS), a widely recognised software for statistical data analysis (Masuadi et al., 2021).

Importantly, this study relies solely on self-reported data from employees regarding their perceptions of coaching's role in reducing stress during organisational change; no objective measures of stress or direct assessments of coaching outcomes were collected. The limitations of this approach, particularly the need for caution when interpreting the results, are outlined in the Limitations section of the paper.

To ensure data quality, data cleaning, a significant component and a primary goal also employed in exploratory data analysis (Dasu & Johnson, 2003), was carried out. This process involved a thorough review of the data for inconsistencies, anomalies, and omissions (Ridzuan & Zainon, 2019). Subsequently, the data were analysed. It was observed that all respondents had completed the survey and responded to questions that were pertinent to the objective of the current study. To provide context for the reader, I offer a brief overview of Phases 1 and 2 of the study before presenting the results of Phase 3.

4. RESULTS

4.1 Phase 1 (Quantitative: A General Scan)

The Phase 1 survey questionnaire was sent to 129 rail organisations via email invitations through the Australian Railway Association (ARA), resulting in 65 responses. In Phase 1, respondents were also asked about their perceived main benefits that the use of coaching could offer to their organisation. As shown in Table 1, reduced employee stress, addressing behavioural issues, assisting in smoother organisational change, productivity, employee retention, and succession planning were mostly considered as important benefits.

Table 1: Perceived Organisational Benefits of Coaching Identified by Participants

	N	Percentage	Percent of Cases
Better integration of employees from overseas	8	2.3%	16.7%
Employees- reduced stress levels	14	4.1%	29.2%
Employees- verification of competency	20	5.8%	41.7%
Coaches as role models for building coaching culture	22	6.4%	45.8%
Smoother organisational and transformational change	24	7.0%	50.0%

Employees- behavioural issues addressed	24	7.0%	50.0%
Employees- raised self-awareness	28	8.1%	58.3%
Employees- performance issues addressed	30	8.7%	62.5%
Better integration of employees into new jobs	32	9.3%	66.7%
More strategic perspective taken	33	9.6%	68.8%
Increased productivity	34	9.9%	70.8%
Employee retention	36	10.4%	75.0%
Succession preparation	40	11.6%	83.3%
Total	345	100.0%	

Phase 1 served as a preliminary exploration of coaching activities and their significance within rail organisations. The insights gained from these responses informed the subsequent phases of the study.

4.2 Phase 2 (Qualitative: Semi-structured interviews)

As stated in the Introduction, this study primarily reports findings from a subset of quantitative data derived from Phase 3 of the larger study. However, the following excerpts from the qualitative results are included to provide additional context and background that may be of interest to the reader. The second phase consisted of semi-structured interviews with 25 participants, including managers, internal coaches, external coaches, and coachees from two of the largest rail organisations in Australia. Interview participants reported that workplace coaching contributed to positive behaviour adaptation and increased work motivation. In this phase participants also reported that for internal coaching practices to be more effective, confidentiality and trust within the coaching relationship needed to be addressed and that internal coaching interventions needed to take a more formal approach. The qualitative results served as the foundation for the subsequent analysis, which led to the findings of Phase 3, pertinent to the present paper.

> *...the comment I often got from many of them was that the coaching program for them, or the coaching engagement, was actually really worthwhile during the reform because it gave them somebody to talk to, it kept their motivation up* [External Coach 2]

> The coach was the one that was able to help that person through and sustain and to be able to stay motivated and achieve KPIs [Manager 4]

> *…whether or not we can give them some coaching to reduce their stress and keep them motivated depends on our financial resources and what the guys at the top think* [Internal Coach 4]

4.3 Phase 3 (Quantitative: Results Relevant to The Present Study)

The survey questionnaire in this phase, utilized for data collection, was distributed to a total of 128 potential rail organizations, encompassing both the public and private sectors, through the Australian Railway Association.

The distribution method involved sending email invitations that included a hyperlink to the online survey questionnaire. A total of 52 responses were received, resulting in an overall response rate of 40.6%. In terms of demographic information, the respondents included both males (n = 31) and females (n = 20), accounting for 59.6% male and 38.5% female respondents in the total sample. When inquired about the duration of their employment with their respective organizations, 30.8% of respondents reported '10 years or more,' 28.8% indicated '5–10 years,' and 25% noted '3–5 years.' As indicated in Table 2, the majority of respondents (n = 42) expressed that both internal and external forms of coaching were suitable.

Table 2: Participant Preferences for Coaching Program Options in Their Organization

		Frequency	Percentage
Valid	Internal coaches	6.0	11.5
	External coaches	2.0	3.8
	Mix of internal and external	42	80.8
	Total	50	96.2
Missing	System	2.0	3.8
Total		52	100.0

The results revealed that 42.3% of respondents had received internal coaching within the past 12 months, while 19.2% of the participants reported having received coaching from an external coach during the same period. Additionally, 34.6% of respondents mentioned that they had provided coaching to others within their organisation. Consequently, it can be inferred that the respondents comprised a mix, with the majority having prior experience and familiarity with coaching.

Participants were asked about whether organizational changes and restructures had influenced their career future in their current role or in the past. As indicated in Table 3, the majority of respondents noted that corporate changes and organizational restructures had somewhat impacted their career future. It is important to note that significant organizational changes and turbulence were reported in previous phases that had impacted rail organizations and this must be taken into consideration while interpreting these results.

Table 3: Impact of Organizational Change on Perceived Career Uncertainty

		Frequency	Percentage
Valid	A great deal	15	28.8
	Somewhat	27	51.9
	Little	10	19.2
	Total	52	100.0

Survey respondents were asked about their involvement in providing or receiving internal and external coaching within the previous 12 months. This was a crucial step in examining and evaluating any potential bias in responses to questions related to an uncertain career future (refer to Table 3). For instance, it was assumed that recent coaching experiences might have influenced their perceptions of past events that led to an uncertain career future, potentially introducing bias into their self-reports regarding job insecurity and uncertainty in the past.

An analysis of their responses revealed that there was no statistically significant association between receiving internal coaching and their responses concerning an uncertain career future, as evidenced by Fisher's exact test with a p-value of .87.

Further analyses were conducted to explore differences in responses between individuals who had received coaching from an 'external coach' and those who had not. The results indicated that there was no statistically significant association between receiving external coaching and their responses concerning uncertain career prospects, as determined by Fisher's exact test ($p = .65$). This suggests that regardless of whether survey respondents had received coaching in the past 12 months or not, their responses regarding the impact of organisational changes on their perception of an uncertain career future were consistent. It's important to clarify that this analysis did not measure the direct impact of coaching on uncertainty. Table 4 illustrates participants' responses to the question regarding the extent to which they believed coaching could reduce work-related stress amidst continual organisational restructuring. The results showed that 59.6% of respondents believed coaching could significantly reduce stress during organisational restructuring.

Table 4: Participant Perceptions of Coaching as a Strategy to Reduce Work-Related Stress During Organisational Change

		Frequency	Percentage
Valid	A great deal	31	59.6
	Somewhat	18	34.6
	Little	2	3.8
	Not sure	1	1.9
	Total	52	100.0

Importantly, this study did not measure the relative effectiveness of internal coaching versus external coaching in reducing work-related stress. However, statistical analyses aimed at identifying differences in responses between those who had received coaching within the past 12 months and those who had not indicated no statistically significant association between receiving internal coaching (Fisher's exact test $p = .27$) or external coaching (Fisher's exact test $p = .19$) and the belief that coaching has potential to reduce work-related stress during times of change. These findings suggest that while statistical significance was not established, a majority of respondents, regardless of whether they had received internal or external coaching in the past year, believed that coaching could significantly or somewhat help to reduce work-related stress.

4.4 Discussion

Existing literature confirms that organizations undergo change for various reasons, and such changes at the organizational level can be unsettling and lead to uncertainty among employees (DeGhetto et al., 2017). The findings from this current study strongly support this notion, indicating that organizational changes and restructures can heighten job insecurity and create an uncertain career outlook. It is concerning to note that a majority of respondents reported experiencing uncertain career futures at some point in their roles when they faced change and restructure in their organizations. This may be attributed to the multiple restructures and ongoing changes they have experienced in the years leading up to their participation in this study.

It is also important to note that context and the industry in which data were collected should be taken into account when generalising these findings to other industries and sectors. Therefore, any applicability and generalisation of the findings should be done with caution. Australia's rail industry, for a long time, was traditionally a workplace that employees spent the large majority of their entire career in that sector and the industry heavily relies on the skills and knowledge that is gained through decades and are passed to new personnel. Moreover, the ageing workforce, skills shortages and regular reforms and major changes in rail sector puts rail workforce in a considerably more vulnerable position compared to many other sectors (Young et al. 2020).

The literature has consistently shown that job insecurity and uncertainty about one's career future are major sources of stress and can lead to other psychological strains (Bordia et al., 2004; Smollan, 2015). As discussed earlier in this article, it is well-established that change can lead to uncertainty and job insecurity, which, in turn, can impact various aspects of employee performance, engagement, satisfaction, and overall health and wellbeing (Backé et al., 2012; Tsutsumi et al., 2009; LaMontagne et al., 2007). The results of this study emphasise the need for continued and proactive efforts to support employees in coping with the consequences of an uncertain career future and job insecurity, as discussed earlier in this paper.

The findings of the current study contribute compelling evidence to the growing body of literature on workplace coaching, which is perceived as playing an important role in helping employees reduce work-related stress during challenging and uncertain times of organisational change and restructuring. Previous literature had suggested that support, whether from within an organisation or external sources, can assist employees in coping with work-related stress (Smollan, 2017).

Specifically, coaching appears to function through several interrelated mechanisms. First, by facilitating a cognitive reappraisal of stressors, coaching interventions help employees reinterpret organisational changes as challenges and opportunities rather than threats—a process grounded in Cognitive Appraisal Theory (Lazarus & Folkman, 1984). Second, coaching may bolster individuals' psychological capital—enhancing self-efficacy, resilience, and optimism which equips employees with the personal resources necessary to cope with uncertainty (Avey et al., 2008; Wang et al., 2022). Third, the development of self-regulation skills through coaching, as discussed by Mühlberger et al. (2025), offers employees strategies to manage their emotional responses and behaviors effectively during change. These interlocking processes help explain why coaching is perceived to reduce work-related stress.

As previously reported (APA, 2021), high levels of stress at work are associated with an increased tendency among employees to consider changing jobs. Building on the findings of the present study, it can be postulated that if workplace coaching is effective in reducing work-related stress, it may also contribute to improved employee retention and decreased turnover rates. However, this must be explored further empirically to establish stronger evidence to support this assumption.

Furthermore, it appears that regardless of whether coaching—internal or external—is already offered within organisations, coaching shows strong potential in addressing work-related stress. It can be generalised that workplace coaching, within the Australian rail industry context—characterized by long-standing employment relationships, unique career pathways, and sector-specific challenges—workplace coaching appears to be percieved as a valuable resource for reducing work-related stress; however, caution is warranted in generalizing these findings to other industries without further comparative research (Young et al., 2020).

It is also important to note that the literature has long recognized stress as a significant threat to wellbeing (Raudeliunaite & Volff, 2020). Summarizing the discussion in light of the current study's findings and in alignment with existing literature defining wellbeing as feeling good and functioning effectively

(Jarden et al., 2015), it can be generally inferred that workplace coaching, with its potential to aid in mitigating work-related stress, may also contribute to improved wellbeing. This generalization is consistent with literature suggesting that wellbeing is positively associated with improved positive emotions (Seligman & Csikszentmihalyi, 2000). Therefore, given that organizational change is reported to potentially lead to uncertainty, negative emotions, and work-related stress, workplace coaching can play a pivotal role in creating opportunities for positive change in individuals and within the workplace.

5. CONCLUSION

The current study being a segment of a larger study enhanced our understanding that change and restructure can cause a great deal of uncertainty and workplace coaching can potentially mitigate stress, and subsequently, contribute to improve wellbeing, performance, retention and productivity. Findings presented in this paper suggest that organizational change and restructuring, depending on the organization and the type of change, may lead to significant career uncertainty and job insecurity. The findings indicate that both internal and external coaching are utilized in organizations and that employees who receive either form of coaching perceive workplace coaching as having strong potential to reduce work-related stress during periods of change and uncertainty. These findings have significant implications for organizations, policy makers and coaching practitioners, emphasizing the need to draw on evidence from diverse sectors and industries when designing coaching programs that mitigate employee stress during periods of change and uncertainty. Effective support strategies should integrate coaching with existing employee assistance programs and mental health initiatives, ensuring these resources are accessible to employees at all levels of the organizational hierarchy.

6. LIMITATIONS AND FUTURE RESEARCH

The main limitation of this study is its focus on a single sector and relatively small sample size, which may limit the generalisability of the findings to other contexts. This study did not assess or measure stress and coaching effectiveness; therefore, its findings are modest and primarily serve as a contribution to the broader discourse on workplace coaching. Additionally, due to reliance on self-report measures, the study does not allow for conclusions regarding the directionality or causality of the relationship between coaching perceptions and work-related stress. Additionally, future studies should aim to boost response rates (e.g. through follow-up reminders or incentives), and, where possible, compare basic characteristics of responders versus non-responders to assess potential bias. Future studies should consider employing longitudinal or experimental designs, along with objective stress measures, to elucidate the causal mechanisms and validate the preliminary perceptions observed in this study. While many organizations currently provide referrals to therapeutic services, such as employee assistance programs (EAPs) or formal counselling, to support employees in managing work-related stress during periods of change, future research should evaluate the efficacy of coaching as a proactive intervention for employees experiencing stress but not requiring clinical psychological treatment.

Acknowledgements: The author expresses gratitude to the Cooperative Research Centres (CRC) Program, an Australian Government initiative, for providing partial funding and support that was instrumental in carrying out this research project.
Author contributions: The author solely contributed in the drafting and data collection of this article.
Ethical Statement: Ethics approval was obtained from the institutional ethics committee.
Consent to Participate: Research was conducted at Central Queensland University, Australia. Informed consent was obtained from all individual participants included in the study. The participants were informed that they could withdraw at any stage and were not required to complete the survey if they chose not to.
Competing Interests: The author declares that this work has no competing interests.
Data Availability Statement: The associated data is available upon reasonable request from the corresponding author.
Declaration Statement of Generative AI: The author declares that no AI tools or programs were used to write this paper.

REFERENCES

Adam, M. L., & Flatau, P. (2006). Job Insecurity and Mental Health Outcomes: An Analysis Using Waves 1 and 2 of HILDA. *The Economic and Labour Relations Review, 17*(1), 143–170. https://doi.org/10.1177/103530460601700106

AHRI Quarterly. (2023, September). *AHRI's Quarterly Australian Work Outlook*. https://www.ahri.com.au/wp-content/uploads/AHRI-Quarterly_September.pdf

Aldrin, N., & Utama, A. P. (2019). Analysis of the Effect of Coaching on Teamwork Performance. International *Journal of Research in Business and Social Science 8*(3), 24–32. https://doi.org/10.20525/ijrbs.v8i3.253

APA (2017). *Change at Work Linked to Employee Stress, Distrust, and Intent to Quit*, New Survey Finds. https://www.apa.org/news/press/releases/2017/05/employee-stress

APA (2021). *The American workforce faces compounding pressure*. APA's 2021 Work and Well-being Survey results. https://www.apa.org/pubs/reports/work-well-being/compounding-pressure-2021

Arora, B. (2017). Importance Of Emotional Intelligence in The Workplace. *International Journal of Engineering and Applied Sciences, 4*(4).

Arthur, A. R. (2000). Employee assistance programmes: The emperor's new clothes of stress management? British *Journal of Guidance & Counselling, 28*(4), 549–559. https://doi.org/10.1080/03069880020004749

Asfaw, A. G., & Chang, C. (2019). The association between job insecurity and engagement of employees at work. *Journal of Workplace Behavioral Health, 34*(2), 96-110. https://doi.org/10.1080/15555240.2019.1600409

Ashkanasy, N. M., & Daus, C. S. (2002). Emotion in the workplace: The new challenge for managers. *Academy of Management Perspectives*, 16, 76–86. https://doi.org/10.5465/ame.2002.6640191

Ashkanasy, N. M., & Dorris, A. D. (2017). Emotions in the Workplace. *Annual Review of Organizational Psychology and Organizational Behavior, 4*(1), 67-90.

Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can Positive Employees Help Positive Organizational Change? Impact of Psychological Capital and Emotions on Relevant Attitudes and Behaviors. *The Journal of Applied Behavioral Science, 44(*1), 48-70. https://doi.org/10.1177/0021886307311470

Backé, E. M., Seidler, A., Latza, U., Rossnagel, K., & Schumann, B. (2012). The role of psychosocial stress at work for the development of cardiovascular diseases: a systematic review. *International Archives* *of Occupational and Environmental Health, 85*(1), 67–79. https://doi.org/10.1007/s00420-011-0643-6

Baillien, E., and De Witte, H. (2009). Why is organizational change related to workplace bullying? Role conflict and job insecurity as mediators. *Econ. Indust. Democr*., 30, 348–371. https://doi.org/10.1177/0143831x09336557

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New American Library.

Bickerich, K., Michel, A., & O'Shea, D. (2018). Executive coaching during organisational change: A qualitative study of executives and coaches' perspectives. *Coaching: An International Journal of Theory, Research and Practice, 11(*2), 117–143. https://doi.org/10.1080/17521882.2017.1407806

Bonde, J. P. (2008). Psychosocial factors at work and risk of depression: A systematic review of the epidemiological evidence. *Occupational and Environmental Medicine*, 65, 438–445. http://dx.doi.org/10.1136/oem.2007.038430

Bordia, P., Hobman, E., Jones, E. et al. (2004). Uncertainty During Organizational Change: Types, Consequences, and Management Strategies. *Journal of Business and Psychology*, 18, 507–532. https://doi.org/10.1023/B:JOBU.0000028449.99127.f7

Callan, V. J. (1993). Individual and organizational strategies for coping with organizational change. *Work & Stress, 7*(1), 63-75. DOI: 10.1080/02678379308257050

Cameron, R., & Ebrahimi, M. (2014). Coaching in the workplace. In *Workforce Development: Perspectives and Issues* (Eds. R. Harris & T. Short), 253–268. Springer, Singapore. https://doi.org/10.1007/978-981-4560-58-0_14

Cannon-Bowers, J., Bowers, C., Carlson, C., Doherty, S., Evans, J., & Hall, J. (2023). Workplace coaching: a meta-analysis and recommendations for advancing the science of coaching. *Frontiers in Psychology*, 14. https://doi.org/10.3389/fpsyg.2023.1204166

Carter, A. (2005). *Providing coaching internally: a literature review*. Institute for Employment Studies.

Cooper, C. L. (1987). Worksite stress management interventions. *Journal of Managerial Psychology, 2*(1), 4–10.

Creswell, J. D., Welch, W. T., Taylor, S. E., Sherman, D. K., Greenwald, T. L., & Mann, T. (2005). Affirmation of personal values buffers neuroendocrine and psychological stress responses. *Psychological Science, 16*(10), 846-851.

Da, S., Fladmark, S. F., Wara, I., Christensen, M., & Innstrand, S. T. (2022). To Change or Not to Change: A Study of Workplace Change during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health, 19*(4), 1982. MDPI AG. http://dx.doi.org/10.3390/ijerph19041982

Daniel, C. O. (2019). Effects of job stress on employee's performance. *International Journal of Business, Management and Social Research, 6*(2), 375-382. https://doi.org/10.18801/ijbmsr.060219.40

Dasu, T., & Johnson, T. (2003). *Exploratory Data Mining and Data Cleaning*. John Wiley & Sons. DOI: https://doi.org/10.1002/0471448354

Davachi, L., Kiefer, T., Rock, D., and Rock, L. (2010). Learning that lasts through AGES. *NeuroLeadership Journal,* Issue 3, pp. 1-11.

David, O. A., Ionicioiu, I., Imbăruş, A. C., & Sava, F. A. (2016). Coaching banking managers through the financial crisis: Effects on stress, resilience, and performance. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 34*(4), 267–281. https://doi.org/10.1007/s10942-016-0244-0 de Vries, M. S. E., & de Vries, M. S. (2023). Repetitive reorganizations, uncertainty and change fatigue. *Public Money & Management, 43*(2), 126-135. https://doi.org/10.1080/09540962.2021.1905258.

DeGhetto, K., Russell, Z., & Gerald, F. (2017). Organizational Change, Uncertainty, and Employee Stress: Sensemaking Interpretations of Work Environments and the Experience of Politics and Stress. Politics, and Political Skill in Job Stress. *Research in Occupational Stress and Well-Being*, 15, 105-135. https://doi.org/10.1108/S1479-355520170000015002

Diener, E., Thapa, L., & Tay, L. (2020). Positive Emotions at Work. *Annual Review of Organizational Psychology and Organizational Behavior, 7*(1), 451-477.

Ebrahimi, M. (2024a). The pulse of connection: Trust and confidentiality in internal coaching dynamics. *Journal of Social, Behavioral, and Health Sciences, 18*(1), 332–363. https://doi.org/10.5590/JSBHS.2024.18.1.22

Ebrahimi, M. (2024b). Building internal coaching capacity: key ingredients for developing internal champions in the workplace. *The Journal of Development and Administrative Studies*, *32*(1-2), 13-30. https://doi.org/10.3126/jodas.v32i1-2.75847.

Ebrahimi, M. (2016). *Building internal coaching capacity and coaching culture to promote positive behaviour change in employees in the face of corporate restructure* [Doctoral thesis, CQUniversity]. https://doi.org/10.25946/13454447.

Ellis, A. (1994). *Reason and emotion in psychotherapy*. Carol Publishing Group.

Fillery-Travis, A., & Lane, D. (2006). Does Coaching Work or Are We Asking the Wrong Question? *International Coaching Psychology Review, 1*(1), 24.

Fløvik, L., Knardahl, S., & Christensen, J. O. (2019). The Effect of Organizational Changes on the Psychosocial Work Environment: Changes in Psychological and Social Working Conditions Following Organizational Changes. *Frontiers in Psychology*, 10, 2845. https://doi.org/10.3389/fpsyg.2019.02845.

Frisch, M. H. (2001). The emerging role of the internal coach. *Consulting Psychology Journal: Practice & Research, 53*(4), 240–250.

Geldart, S., Langlois, L., Shannon, H. S., Cortina, L. M., Griffith, L., & Haines, T. (2018). Workplace incivility, psychological distress, and the protective effect of co-worker support. *International Journal of Workplace Health Management*, 11, 96–110. https://doi.org/10.1108/ijwhm-07-2017-0051

Georgalis, J., Samaratunge, R., Kimberley, N., & Lu, Y. (2015). Change process characteristics and resistance to organizational change: The role of employee perceptions of justice. *Australian Journal of Management, 40*(1), 89-113. https://doi.org/10.1177/0312896214526212.

Gorgenyi-Hegyes, E., Nathan, R. J., & Fekete-Farkas, M. (2021). Workplace health promotion, employee wellbeing, and loyalty during COVID-19 Pandemic—Large scale empirical evidence from Hungary. *Economies, 9*(2), 55.

Grant, A. M., Curtayne, L., & Burton, G. (2009). Executive coaching enhances goal attainment, resilience and workplace well-being: a randomised controlled study. *The Journal of Positive Psychology, 4*(5), 396–407. https://doi.org/10.1080/17439760902992456

Grant, A. M. (2016). The third 'generation' of workplace coaching: creating a culture of quality conversations. Coaching: An International *Journal of Theory, Research and Practice, 10*(1), 37-53. https://doi.org/10.1080/17521882.2016.1266005

Green, S., Grant, A., & Rynsaardt, J. (2007). Evidence-based life coaching for senior high school students: Building hardiness and hope. *International Coaching Psychology Review, 2*(1), 24–32.

Greif, S., Möller, H., Scholl, W., Passmore, J., & Müller, F. (2022). Coaching definitions and concepts. In *International Handbook of Evidence-Based Coaching: Theory, Research and Practice* (Eds. S. Greif, H. Möller, W. Scholl, J. Passmore, and F. Müller). Springer.

Grover, S., & Furnham, A. (2016). Coaching as a Developmental Intervention in Organisations: A Systematic Review of Its Effectiveness and the Mechanisms Underlying It. *PloS One, 11*(7), e0159137. https://doi.org/10.1371/journal.pone.0159137

Gyllensten, K., & Palmer, S. (2005). Can coaching reduce workplace stress. *The Coaching Psychologist, 1*(1), 15-17.

Hair, J. R., Babin, B., Money, A., & Samouel, P. (2003). *Essentials of Business Research Methods*. John Wiley & Sons, Sydney.

Hellerstein, J. M. (2008). *Quantitative Data Cleaning for Large Databases*. United Nations Economic Commission for Europe (UNECE). Computer Science.

Helpap, S., & Bekmeier-Feuerhahn, S. (2016). Employees' emotions in change: advancing the sensemaking approach. *Journal of Organizational Change Management*, 29, 903-916. https://doi.org/10.1108/JOCM-05-2016-0088

Huflejt-Łukasik, M., Jędrzejczyk, J., & Podlaś, P. (2022). Coaching as a Buffer for Organisational Change. *Frontiers in Psychology*, 13, 841804. https://doi.org/10.3389/fpsyg.2022.841804.

Iskamto, D. (2021). Stress and Its Impact on Employee Performance. *International Journal of Social and Management Studies, 2*(3), 142–148. https://doi.org/10.5555/ijosmas.v2i3.42.

Jarden, R., Jarden, A., & Oades, L. (2015). Wellbeing policy in Australia and New Zealand. In M. Slade, L. Oades, and A. Jarden (Eds.), *Wellbeing, Recovery, and Mental Health*. Cambridge University Press.

Jian, G. (2007). Unpacking Unintended Consequences in Planned Organizational Change: A Process Model. *Management Communication Quarterly, 21*(1), 5–28. https://doi.org/10.1177/0893318907301986.

John-Brooks, K. S. (2014). *Internal Coaching: The Inside Story*. Routledge.

Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.

Keri Giordano, Shiloh Eastin, Briana Calcagno, Salena Wilhelm, & Alexandra Gil (2021). Examining the effects of internal versus external coaching on preschool teachers' implementation of a framework of evidence-based social-emotional practices. *Journal of Early Childhood Teacher Education, 42*(4), 423-436. DOI: https://doi.org/10.1080/10901027.2020.1782545

Kilburg, R. R. (Ed.) (1996). Executive coaching [special issue]. *Consulting Psychology Journal: Practice and Research*, 48.

Ladegård, G. (2011). Stress management through workplace coaching: The impact of learning experiences. *International Journal of Evidence-Based Coaching & Mentoring, 9*(1). https://psycnet.apa.org/record/2012-08457-005.

LaMontagne, A. D., Keegel, T., & Vallance, D. (2007). Protecting and promoting mental health in the workplace: developing a systems approach to job stress. *Health Promotion Journal of Australia, 18*(3), 221–228. https://doi.org/10.1071/HE07221.

LaMontagne, A. D., Martin, A., Page, K. M., Reavley, N. J., Noblet, A. J., Milner, A. J., Keegel, T., & Smith, P. M. (2014). Workplace mental health: developing an integrated intervention approach. *BMC Psychiatry*, 14, 131. https://doi.org/10.1186/1471-244X-14-131

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lee, H. (2021). Changes in workplace practices during the COVID-19 pandemic: the roles of emotion, psychological safety and organisation support", *Journal of Organizational Effectiveness: People and Performance, 8* (1), https://doi.org/10.1108/JOEPP-06-2020-0104

Li, J., Riedel, N., Barrech, A., Herr, R. M., Aust, B., Mörtl, K., Siegrist, J., Gündel, H., & Angerer, P. (2017). Long-Term Effectiveness of a Stress Management Intervention at Work: A 9-Year Follow-Up Study Based on a Randomized Wait-List Controlled Trial in Male Managers. *BioMed Research International*, 2017, 2853813. https://doi.org/10.1155/2017/2853813

Masuadi, E., Mohamud, M., Almutairi, M., Alsunaidi, A., Alswayed, A. K., & Aldhafeeri, O. F. (2021). Trends in the Usage of Statistical Software and Their Associated Study Designs in Health Sciences Research: A Bibliometric Analysis. *Cureus, 13*(1), e12639. https://doi.org/10.7759/cureus.12639

Maqsoom, A., Mughees, A., Zahoor, H., Nawaz, A., & Mazher, K. M. (2019). Extrinsic psychosocial stressors and workers' productivity: impact of employee age and industry experience. *Applied Economics, 52*(26), 2807–2820. https://doi.org/10.1080/00036846.2019.1696936

Merton, R. K. (1968). *Social Theory and Social Structure*. Free Press.

Michie. S (2002). Causes And Management of Stress at Work. *Occupational and Environmental Medicine*, 59, 67-72.

Milot, M., & Borkenhagen, E. (2018). Job stress in users of an Employee Assistance Program and association with presenting status. *Journal of Workplace Behavioral Health, 33*(3-4), 153-167. https://doi.org/10.1080/15555240.2018.1502044

Morris, B. (2000, February 21). *So, you're a player. Do you need a coach?* Fortune, 141, 144-154.

Mithaug, D. E. (1993). *Self-regulation theory: How optimal adjustment maximizes gain*. Praeger Publishers/Greenwood Publishing Group.

Muchinsky, P. M. (2000). Emotions in the workplace: the neglect of organizational behavior. *J. Organiz. Behav*., 21, 801-805. https://doi.org/10.1002/1099-1379(200011)21:7

Mühlberger, C., Zerle, G., Möller, J., Diller, S. J., Greif, S., Kinder, N., & Jonas, E. (2025). Zooming in on the self in workplace coaching: Self-regulation and its connection to coaching success. *Journal of Occupational and Organizational Psychology, 98*(1), Article e12543. https://doi.org/10.1111/joop.12543

Neenan, M., & Palmer, S. (2001). Cognitive behavioural coaching: Stress management and performance enhancement. In J. Passmore (Ed.), *Excellence in coaching: The industry guide* (pp. 102–111). Kogan Page.

Nemteanu, S., Vasile, D., & Dan-Cristian, D. (2021). Job Insecurity, Job Instability, and Job Satisfaction in the Context of the COVID-19 Pandemic. *Journal of Competitiveness*, 13, 65-82. https://doi.org/10.7441/joc.2021.02.04

Netterstrøm, B., Conrad, N., Bech, P., Fink, P., Olsen, O., Rugulies, R., & Stansfeld, S. (2008). The Relation between Work-related Psychosocial Factors and the Development of Depression. *Epidemiologic Reviews, 30*(1), 118–132. https://doi.org/10.1093/epirev/mxn004

Otto, K., Thomson, B., & Rigotti, T. (2018). When dark leadership exacerbates the effects of restructuring. *Journal of Change Management, 18*(2), 96–115. https://doi.org/10.1080/14697017.2018.1446691.

Palmer, S., & Whybrow, Alison. (2005). The proposal to establish a Special Group in Coaching Psychology. *The Coaching Psychologist,* 1, 5-12.

Pasieczny, J. (2017). Organisational Pathologies Under Conditions of Economic Downswing. *Economics and Culture, 14*(1), 21-30.

Park, J., & Min, H. (2020). Turnover intention in the hospitality industry: A meta-analysis. *International Journal of Hospitality Management*, 90, 102599. https://doi.org/10.1016/j.ijhm.2020.102599

Passmore, J., & Tee, T. (2020). *Coaching Researched: A Coaching Psychology Reader for Practitioners and Researchers*. John Wiley & Sons.

Pekrun, R. (2011). Emotions as drivers of learning and cognitive development. In R. Calvo & S. D'Mello (Eds.), *New perspectives on affect and learning technologies* (Vol. 3, pp. 23–39). Springer. https://doi.org/10.1007/978-1-4419-9625-1_3

Pousa, C., & Mathieu, A. (2015). Is managerial coaching a source of competitive advantage? Promoting employee self-regulation through coaching. Coaching: *An International Journal of Theory, Research and Practice, 8*(1), 20–35. https://doi.org/10.1080/17521882.2015.1009134

Probst, T. M. (2003). Exploring employee outcomes of organizational restructuring: a Solomon four-group study. *Group Organ. Manag*., 28, 416–439. https://doi.org/10.1177/1059601102250825

Quiun, L. (2018). The possibilities of a coaching psychology framework for targets of workplace bullying. *Coaching Psychology International, 11*(1), 19-26.

Rahman, N., Mahmood, A., Ibtasam, M., Murtaza, S. A., Iqbal, N., & Molnar, E. (2021). The Psychology of Resistance to Change: The Antidotal Effect of Organizational Justice, Support and Leader-Member Exchange. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.678952

Raudeliunaite, R., & Volff, G. (2020). The causes of stress at work amongst social workers. SHS Web Conf., 85. https://doi.org/10.1051/shsconf/20208503004.

Ridzuan, F., & Zainon, W. M. (2019). A Review on Data Cleansing Methods for Big Data. *Procedia Computer Science*, 161, 731–738. https://doi.org/10.1016/j.procs.2019.11.177.

Rizwan, M., Waseem, A., & Bukhari, S. A. (2014). Antecedents of job stress and its impact on job performance and job satisfaction. *International Journal of Learning & Development, 4*(2), 187-203.

Rolfe, J. (2010). Change is a constant requiring a coach. *Library Management, 31*(4/5), 291–303. https://doi.org/10.1108/01435121011046353.

Ross, R. R., & Altmaier, E. M. (1994). *Intervention in occupational stress: A handbook of counseling for stress at work*. Sage.

Roy K. Smollan (2017). Supporting staff through stressful organizational change. *Human Resource Development International, 20*(4), 282-304. 10.1080/13678868.2017.1288028

Salvagioni, D., Melanda, F., Mesas, A., González, A., Gabani, F., Andrade, S. (2017). Physical, psychological, and occupational consequences of job burnout: A systematic review of prospective studies. *PLOS ONE*, 12. e0185781. https://doi.org/10.1371/journal.pone.0185781.

Schalk, M., & Landeta, J. (2017). Internal versus external executive coaching. *Coaching: An International Journal of Theory, Research and Practice, 10*(2), 140–156. DOI: https://doi.org/10.1080/17521882.2017.1310120

Schumacher, D., Schreurs, B., Van Emmerik, H., and De Witte, H. (2016). Explaining the Relation Between Job Insecurity and Employee Outcomes During Organizational Change: A Multiple Group Comparison. *Human Resource Management*, 55, 809-827. https://doi.org/10.1002/hrm.21687

Seikkula-Leino, J., & Salomaa, M. (2020). Entrepreneurial Competencies and Organisational Change—Assessing Entrepreneurial Staff Competencies within Higher Education Institutions. *Sustainability, 12*(18), https://doi.org/10.3390/su12187323

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5–14.

Shahsavarani, A. M., Abadi, E. A., & Kalkhoran, M. H. (2015). Stress: Facts and Theories through Literature Review. *International Journal of Medical Reviews*, 2, 230-237.

Shahu, R., & Gole, S. V. (2008). Effect of job stress and job satisfaction on performance: An empirical study. *AIMS International Journal of Management, 2*(3), 237-246.

Shors, T. J. (2004). *Learning during stressful times. Learning & Memory 11*(2), 137–144. https://doi.org/10.1101/lm.66604

Silzer R., Church A., Rotolo C., Scott J. (2016). I-O Practice in Action: Solving the Leadership Potential Identification Challenge in Organizations. I*nd. Organ. Psychol.* 9, 814–830. doi: 10.1017/iop.2016.75

Smollan, R. K. (2015). Causes of stress before, during, and after organizational change: a qualitative study. *Journal of Organizational Change Management, 28*(2), 301-314. https://doi.org/10.1108/JOCM-03-2014-0055

Spence, G. B., & Grant, A. M. (2007). Professional and peer life coaching and the enhancement of goal striving and well-being: An exploratory study. *Journal of Positive Psychology, 2*(3), 185-194. https://doi.org/10.1080/17439760701228896

Spence, G. B., & Grant, A. M. (2007). Professional and peer life coaching and the enhancement of goal striving and well-being: An exploratory study. *The Journal of Positive Psychology, 2*(3), 185–194. https://doi.org/10.1080/17439760701228896

Srivastava, S., and Agrawal, S. (2020), "Resistance to change and turnover intention: a moderated mediation model of burnout and perceived organizational support", *Journal of Organizational Change Management, 33*(7), 1431-1447. https://doi.org/10.1108/JOCM-02-2020-0063

Taris, T. W., & Schaufeli, W. B. (2015). The job demands-resources model. In S. Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell handbook of the psychology of occupational safety and workplace health* (Chapter 8). https://doi.org/10.1002/9781118979013.ch8

Tran, C. T. H., Tran, H. T. M., Nguyen, H. T. N., Mach, D. N., Phan, H. S. P., & Mujtaba, B. G. (2020). Stress Management in the Modern Workplace and the Role of Human Resource Professionals. *Business Ethics and Leadership, 4*(2), 26-40. https://doi.org/10.21272/bel.4(2).26-40.2020.

Traut-Mattausch, E., Zanchetta, M., & Pömmer, M. (2021). A cognitive-behavioral stress management coaching. *Coaching: Theory & Practice*, 7, 69–80. https://doi.org/10.1365/s40896-021-00056-2.

Tsutsumi, A., Kayaba, K., Kario, K., Ishikawa, S. (2009). Prospective study on occupational stress and risk of stroke. *Archives of Internal Medicine*, 169, 56–61. https://doi.org/10.1001/archinternmed.2008.503.

Vogel, S., Schwabe, L. (2016). Learning and memory under stress: implications for the classroom. *npj Science of Learning,* 1, 16011. https://doi.org/10.1038/npjscilearn.2016.11

Wang, R., Zhou, H., & Wang, L. (2022). The influence of psychological capital and social capital on the entrepreneurial performance of the new generation of entrepreneurs. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.832682

Whitmore, J. (1992). *Coaching for Performance*. Nicholas Brealey.

Whitmore, J. (2002). *Coaching For Performance: Growing People, Performance and Purpose* (3rd Ed). Nicholas Brealey Publishing.

Yang, T., Shen, Y. M., Zhu, M., Liu, Y., Deng, J., Chen, Q., & See, L. C. (2015). Effects of Co-Worker and Supervisor Support on Job Stress and Presenteeism in an Aging Workforce: A Structural Equation Modeling Approach. *International Journal of Environmental Research and Public Health, 13*(1), https://doi.org/10.3390/ijerph13010072

Yip, J., Trainor, L. L., Black, H., Soto-Torres, L., & Reichard, R. J. (2020). Coaching new leaders: A relational process of integrating multiple identities. *Academy of Management Learning & Education, 19*(4), 503-520.

Young, C., Jones, R. N., Heenetigala, K., Ooi, D., Lung, S., and Parry, N. (2020). *Reimagining the workforce: the Victorian rolling stock context*. Literature review. Rail Manufacturing Cooperative Research Centre, Melbourne

Zeus, P., & Skiffington, S. (2001). *The Complete Guide to Coaching at Work*. McGraw-Hill Australia.