

# Exploring the Nexus of Emotional Intelligence and University Performance: An Investigation Through Perceived Organizational Support and Innovative Work Behavior

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**Purpose:** This study is based on the ability-based theory of emotional intelligence (EI), organizational support theory, and componential theory of creativity. This study intended to investigate organizational performance (OP) against academics' EI in higher education institutions (HEIs) in China. This study further scrutinized perceived organizational support (POS) and innovative work behavior (IWB) as mediators among these associations. Similarly, the inter-link between POS and IWB was investigated.

**Design/methodology/Approach:** Chinese HEIs academicians (327) were examined using quantitative and cross-sectional research methods. Likewise, PLS-SEM, that is, partial least squares structural equation modeling, was used as a data analysis method to examine assumed relationships statistically.

**Findings:** The extracted findings established the anticipated relationships, and the results validated that EI had a direct and positive association with OP in HEIs. Similarly, the findings revealed that IWB partially mediated the association between EI and OP; however, full mediation was observed in the case of POS.

**Practical Implications:** This study emphasizes the importance of unindustrialised glamorous blend of EI and OP in HEIs. In addition, the findings asserted that HEIs staff evaluate and control high-voltage circumstances that assure an effectual valuation and supervision of the self and others' emotions. Equally, EI amplifies POS, which flares up the IWB while enriching OP in HEIs.

**Originality/Value:** This study examined OP alongside academicians' EI in HEIs, which is among the initial pieces of research on HEIs. Additionally, the wholesome research nexus that scrutinizes POS and IWB as an inter-link between EI and OP in HEIs is original.

**Keywords:** organizational performance, emotional intelligence, perceived organizational support, innovative work behavior, higher education institutions

## Introduction

Higher education institutions (HEIs) share the same agenda with interactive people directed at adaptation, flexibility, change and success.<sup>1,2</sup> In modern psychology, HEIs need emotional intelligence (EI). "EI is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth".<sup>3</sup> Hence, HEIs aim for their routine activities to achieve more with less which results in competitive advantage and enhanced organizational performance (OP).<sup>4</sup> Chinese HEIs are making efforts to introduce EI and, at the same time, try to educate and train their personnel to attain better individuals for enhanced OP. However, Chinese HEIs lack disciplined strategies and/or policies to introduce and implement EI in their immediate workforce. Therefore, it is necessary to spend time to educate employees in relation to EI and composure, which brings stability in personal stature and performance, along with improved OP.

Therefore, a thorough investigation is required regarding EI in Chinese HEIs.<sup>1</sup> Furthermore, recent research argues the prominence of EI as a predictor in vital areas like academic environment, job performance, negotiation, leadership, emotional labor, trust, work–family conflict, and stress,<sup>1,5</sup> but limited literature is found regarding EI in HEIs overall and specifically in China.<sup>1</sup> It is further revealed that personnel in organizations praise EI in their immediate relations, including bosses, which helps them to have positive relations with colleagues. This process, in turn, assists personnel in working tirelessly to enhance OP.<sup>6,7</sup> Hence, EI positively reshapes employee performance positively.<sup>8</sup> Similarly, EI as an ability is a vital predictor of work-related outcomes, while cognitive intelligence is the single best predictor of a job and OP.<sup>9,10</sup> OP is explained as “comparing the expected results with the actual ones, investigating deviations from plans, assessing individual performance, and examining progress made towards meeting the targeted objectives”.<sup>11</sup> However, the phenomenon that enhances employees’ performance and OP through EI was presented insufficiently in research. Emotionally intelligent personnel explore opportunities out of every challenge, hence proving themselves instrumental for OP while avoiding negative outcomes for individuals and Ops.<sup>5</sup> Therefore, it can be argued that EI is concerned with personnel performance, which ultimately directs them towards OP as a whole.<sup>12</sup> Furthermore, in recent time several organizations including HEIs included EI in their employee development program checklists,<sup>1,5</sup> hence, assuring the idea that OP is not only dependent on verbal and practical expertise but also traits concerning emotions. In China, personnel in HEIs are neglected regarding their emotions, which most often shape their energy for OP. This study attempts to fill this research gap.

Perceived organizational support (POS) emphasizes personnel’s “general belief that their work organization values their contributions and cares about their well-being”.<sup>13</sup> Similarly, POS in organizations is seen as a factor that “may be used by employees as an indicator of the organization’s benevolent or malevolent intent in the expression of exchange of employee effort for reward and recognition”.<sup>14</sup> Research has argued that organizational support is a motivational gesture that relieves stress and enhances the emotional pledge of employees for organizations.<sup>3,13</sup> Therefore, it is postulated that whenever personnel observe and receive enhanced organizational support, they wholeheartedly contribute to organizational goals that guarantee superior OP.<sup>14</sup> POS, as per the organizational support theory, seeks emotional comprehension, out-loud recognition, appreciation, and endorsement.<sup>15</sup> Further, it is described that once employees perceive organizational support, they tend to engage in affirmative emotional connections within themselves.<sup>16</sup> Similarly, POS is believed to be a trade-off norm, in which personnel develop emotional attachments when they receive compassionate and optimistic esteem.<sup>17</sup> Hence, after developing emotional attachment towards organizations, personnel perceive it as their obligation to think of their organizations and come across organizational goals efficiently.<sup>18</sup> Similarly, Cullen, Edwards (19) argued that POS improves OP when circulated across the functional layers of an organization.<sup>19</sup> Additionally, Performance studies exactly 20 on POS argued for a highly significant statistical relationship between POS and OP.<sup>13</sup> The working milieu of an organization often irritates personnel, and their rejoinders differ emotionally depending on the support they receive from the organization.<sup>15</sup> Further, it is argued that POS mitigates the stress of emotional labor with respect to the hassles put forth by organizations.<sup>17</sup> Studies have argued that there is a direct positive relationship between POS and OP.<sup>18,20</sup> Likewise, literature argued, through meta-analysis, that POS positively correlates with overall performance.<sup>13</sup> Moreover, it is suggested that when employees feel supported, they understand the meaning of their work and enjoy autonomy, which improves individual cumulus OP.<sup>21</sup>

Innovative work behavior (IWB) is defined as an individual’s behavior that realizes commencement and planned introduction, whether within a work role, group, or organization of novel and valuable concepts, procedures, products, or processes.<sup>22</sup> Nonetheless, there is a paucity of research on methods to develop and boost personnel creativity and at the same time whether creativity can enhance OP, especially in educational institutions.<sup>1,23,24</sup> It is argued that EI is a valuable success factor in the workplace that gradually improves individuals’ performance and OP.<sup>25,26</sup> Hence, since the inception of the EI concept, researchers have investigated EI using different organizational factors. Nevertheless, researchers have neglected IWB against EI in organizations. For this reason it is emphasized through literature to investigate the association amongst EI and IWB.<sup>1,26</sup> Hence, it is necessary to explore the relationship between EI and IWB in HEIs because the literature is almost silent in this regard. It is argued that innovative personnel outperform their previous working standards, thus boosting OP.<sup>27</sup> Support, whether intrinsic or extrinsic in nature, enhances employees’ creativity and IWB,<sup>1</sup> which, in turn, contributes to overall OP. Furthermore, over the last two decades, research has

comprehensively argued that IWB is key to organizational success and performance.<sup>1,28</sup> Further, it is argued that personnel EI positively influence creative performance and IWB.<sup>29,30</sup> IWB accelerates when subordinates' emotions are well understood and led well.<sup>31</sup> A dynamic environment demands that an organization be dynamic in terms of innovative employee behavior with underlying traits of developing, adopting, and implementing new ideas.<sup>32,33</sup>

POS and work-related attitudes are familiar to each other, as a positive relationship has been proven.<sup>34</sup> Organizations concerned with innovativeness back the creation and implementation of new ideas.<sup>1</sup> POS for innovative work is instrumental to employees' creative performance.<sup>35</sup> Supportive milieus further works like energy boosters to direct employees' behavior toward creative performance.<sup>1</sup> Employees enjoy unrestricted assignments, and if they feel supported, they try to reimburse highly supported treatment.<sup>36</sup> At the individual level, POS is positively related to workplace performance.<sup>13</sup> POS is used as mediation in literature,<sup>37</sup> likewise IWB is also examined as mediator in literature in HEIs<sup>1</sup> further, the mentioned studies extracted positive results in relation with mediation analysis. This study intends to respond to the underlying research questions in relation to HEIs academicians;

Research query: Does academicians' EI significantly impact the OP of Chinese HEIs?

Research query: Does academicians' EI have a significant impact on their POS in Chinese HEIs?

Research query: Does academicians' EI have a significant impact on their IWB in Chinese HEIs?

Research query: Does POS significantly affect OP in Chinese HEIs?

Research query: Does IWB significantly affect OP in Chinese HEIs?

Research query: Do POS and IWB share an inter-link between them in Chinese HEIs?

Research query: Do POS and IWB mediate between EI and OP in Chinese HEIs?

Therefore, this study investigates the explained literary gaps in Chinese HEIs based on the ability-based theory of EI, organizational support theory, and componential theory of creativity. This study intends to investigate the direct relationship between EI and OP among Chinese HEIs' academicians. This study further explores the mediation of POS and IWB between the aforementioned relationships, while investigating the inter-link between POS and IWB in this sector. EI needs to be investigated in HEIs, specifically in China, thus inspiring researchers to examine EI in HEIs in relation to OP. Furthermore, POS and IWB are novel in terms of the mediation between EI and OP in Chinese HEIs.

## Theoretical Background and Hypotheses Development

This study infers guidelines from the ability-based theory of EI,<sup>3</sup> the organizational support theory,<sup>38</sup> and the componential theory of creativity.<sup>39</sup>

The ability-based theory of EI,<sup>3</sup> on one hand emphasizes the timely management of emotional endeavors that enable personnel to take advantage of pressure situations through learning and experience.<sup>40</sup> EI, hence, is all about uneven situations that convince personnel to accurately percept, appraise and channelize personal and others' emotions to come through the situations.<sup>41</sup> Ability-based theory of EI is divided into four crucial emotional aptitudes. (a) Social adaptation: This practice entails the accurate perception and comprehension of personal and others' emotions. (b) Goal attainment: This practice entails guiding, regulating, and modifying the emotional endeavors of the hand and others. (c) Problem solving: This practice entails the application of personal emotions to solve problems. (d) Self-regulation: This practice entails continuous and regular mastery of personal emotions to enhance personal emotional and rational growth.<sup>3</sup> Hence, the ability-based theory of EI is widely used in research- and developmental-based institutions.<sup>40,42</sup>

On the other hand, organizational support theory endorses POS and argues that organizational support theory convinces employees to have strong faith in their organizations' care for their well-being, hard work, and contributions.<sup>38</sup> Hence, POS ignites employees' obligational care and responsibility towards their organizations' set goals and objectives.<sup>43</sup> In the meantime, POS has certain obligations towards employees to fulfill their socio-emotional prerequisites, incorporate employees' social identity while confirming and authorizing their roles, enhance intrinsic and extrinsic recognition, and reward employees for enhanced output and performance.<sup>19</sup> Employees must be enthusiastic and faithful to their work and organizations. If an environment of reciprocity in relation to support and well-being is consolidated between employees and organizations, employees expand their socio-emotional attachment to organizations that refrain from turnover and expedite their hunger for superior personal and OP.<sup>19,44</sup> Research explain thoroughly that POS escalates personal and OP.<sup>37</sup> According to organizational support theory, employees' perceived support depends on

certain organizational conduct, such as paying them a fair amount in terms of salaries and simultaneously modifying their responsibilities to attract them through the meaningfulness of tasks.<sup>44</sup> Likewise, equal opportunities for recognition and rewards make employees think of a fair valuation of their contributions, thereby urging them to support organizations more than ever before.<sup>21,38</sup>

Similarly, the componential theory of creativity<sup>39</sup> emphasizes the psychological and social mechanisms that encourage employees to be creative. Hence, this theory intrigues employees through intrinsic motivation and simultaneously counts organizational context support (competitive benefits, eg, compensation) that ignite/diffuse intrinsic motivation for creativity.<sup>6,45</sup> Hence in HEIs if employees and organizations develop a reciprocity norm of psychological and social well-being then employees put their efforts to be innovative while fulfilling their assignments.<sup>1</sup> This process ultimately outperformed competitors through enhanced OP.

## Emotional Intelligence and Organizational Performance

HEIs personnel utilize EI to accurately comprehend and weigh pressure circumstances, and put forth parallel emotional remedies to resolve situations.<sup>46</sup> This enduring process extends HEIs personnel's learning and institutional success through proper utilization of emotional tactics.<sup>42</sup> Research on EI has surged in recent years. It has recently been argued that EI plays a vital role in individual cum-organizational learning, success, and performance.<sup>47</sup> Therefore, it is necessary for organizations to advocate EI training and developmental activities. For this reason, EI is counted as an integral part of organizational assets, calling it emotional capital (an intangible organizational asset). This emotional capital is generated through personnel's emotional experiences that enable them to communicate fairly and form collegial relationships for organizational goals and objectives. Hence, EI is regarded as a vital factor that improves OP, subsequently enabling personnel to strive for shared results through robust relationships. In contrast, the minimal existence of EI may trigger conflict, resulting in low individual and OP.<sup>48</sup>

Similarly, emotions may have a demanding influence on an individual's behavior. It is further evident that personnel make/break the fate of OP and success while experiencing emotional situations.<sup>49</sup> Customarily, personnel showcase positive/negative emotions at workstations, which create or break the overall result that ultimately influences OP.<sup>50</sup> Therefore, it is vital for people in charge to understand and control their emotions and understand and respond to others' emotions wisely to create conducive workplaces that supplement superior OP.<sup>51</sup> Furthermore, in the commercial arena, EI has a positive impact on OP.<sup>52</sup> This study explored this relationship among Chinese HEIs. EI likewise urges personnel to be committed and loyal to their set objectives while assessing and exhibiting wrong emotions may mutilate their commitment and loyalty towards their set objectives hence damaging OP.<sup>5</sup> Hence, EI is an essential factor for OP, and organizations need to channelize it among personnel to enrich OP.<sup>48</sup> Through this deliberation, we propose the following hypotheses:

Hypothesis 1: EI is positively related to OP.

## Emotional Intelligence, Perceived Organizational Support and Organizational Performance

POS is defined as employees who develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being.<sup>15</sup> POS is rooted in organizational support theory, which emphasizes that employees are vital assets of an organization.<sup>53</sup> Hence, organizational support convinces employees politely to devote their efforts to organizations willingly<sup>13</sup> thus enabling organizations to perform competitively. As far as employees are encouraged socially and emotionally then they "incorporate organizational membership into their self-identity"<sup>15</sup> that builds employees' social and emotional interactions positively with organizations and colleagues hence employees' OP increases. Similarly, research has established the positive effects of POS on numerous variables, such as increased emotional commitment and job involvement,<sup>18,37</sup> and decreased strain, absenteeism, and turnover intentions.<sup>15,54</sup> Similarly, POS encourages employees to engage with assigned duties and organizations, resulting in increased job satisfaction and enhanced OP.<sup>55</sup> Similarly, POS strengthens employees' emotional commitment towards their tasks and

organizations once they are encouraged emotionally; hence, individual OP increases.<sup>15,56</sup> Additionally, POS influences emotional exhaustion, which in turn enriches individual and OP.<sup>57</sup> Hence, we propose the following hypothesis:

Hypothesis 2: EI is positively related to POS.

Organizational support theory encourages employees to develop exchange relations with organizations that vary in strength, thus guiding their behavioral and practical reactions.<sup>38</sup> Likewise, encouraging gestures from organizations helps employees engage with organizational objectives wholeheartedly, resulting in increased OP.<sup>58,59</sup> However, to the best of our knowledge, the supportive contrivances linking EI to OP in HEIs are immature. Therefore, POS was examined as a contrivance link between the aforementioned setups. Additionally, when employees perceive satisfactory conduct from organizations, they tend to give back effortlessly; hence, OP improves.<sup>43</sup> Likewise, supportive leadership, provision of sufficient organizational resources, fair distribution of rewards lie under the fair perceptions (contributions are valued and well-being is considered vital) of employees in relation with organizational support,<sup>19,60</sup> hence employees and OP improves. Therefore, we propose the succeeding hypothesis:

Hypothesis 3: POS is positively related to OP.

## Emotional Intelligence, Innovative Work Behavior and Organizational Performance

Literature explained EI and IWB in HEIs and emphasized that EI influences employees' IWB in HEIs.<sup>1</sup> IWB is practiced in an environment that includes employees' interactive relationships with colleagues and organizations.<sup>61</sup> Similarly, literature endorsed that EI is positively related to IWB.<sup>62</sup> Correspondingly, educational personnel should be equipped with EI and innovative behavior that strengthens OP.<sup>1,23</sup> A certain bunch of researchers believe that EI urge personnel to distinguish emotions hence modifying their thoughts and actions that ultimately have positive effects on creativity and IWB.<sup>1,35,63</sup> Similarly, emotionally intelligent personnel have multiple solutions to a certain problem, and innovative behavior continues through it may be tough going.<sup>12</sup> Similarly, literature argue that EI has a positive effect on workplace creativity.<sup>64</sup> Nonetheless, the aforementioned relationship produced negative results too.<sup>65</sup> Likewise, it is maintained that EI has little relationship with creativity (divergent thinking and creative personality); hence, inconsistent results were found regarding the relationship between EI and IWB.<sup>66</sup> Nonetheless, we carried forward the literature where a positive relationship between EI and IWB was witnessed.<sup>1,12,64</sup> Furthermore, as per the ability-based model of EI, personnel cognitive comprehension, such as decision-making, problem solving, and reasoning, largely depends on the facilitation of emerging emotions that ultimately augment creativity; hence, emotionally intelligent personnel are inclined towards more creative conduct. Therefore, we propose the following hypotheses:

Hypothesis 4: EI is positively related to IWB.

Organizations seek enhanced growth, superior performance, and sustained competitive advantage through a continuous trend in the IWB. Therefore, IWB supplements top-tier management and organizations to swiftly answer the marketplace, thereby enhancing customer satisfaction and sustainable OP.<sup>67,68</sup> Likewise, advocating IWB throughout the organization results in improved performance in relation to cost discount, quality, and flexibility<sup>69</sup> which, in turn, proves to be a good omen for overall OP. Similarly, HEIs are in acute need of IWB, depending on the volatile demands of the society.<sup>70,71</sup> Additionally, HEIs are looking for better service quality, refined curriculum, enhanced student satisfaction, and improved research outputs; hence, IWB in HEIs may produce such results<sup>1</sup> as the commercial context has reaped positive outputs through IWB and OP.<sup>72</sup> Therefore, we propose the following hypotheses:

Hypothesis 5: IWB is positively related to OP.

## Interlink and Mediation of Perceived Organizational Support and Innovative Work Behavior

Employees' IWB depends on the organizational environment that encourages them to perceive, breed, stimulate, and recognize novel ideas.<sup>73</sup> Hence, IWB is strongly related to POS.<sup>18,73</sup> Social exchange theory<sup>74</sup> likewise argues that POS



is a two-way traffic; that is, employees and organizations both look at each other for the successful execution of set goals and comprehensive valuation of employees' efforts.<sup>21</sup> Similarly, personnel with higher perceptions of organizational support put extra effort into the betterment of organizations through the successful completion of set objectives. Similarly, employees with higher POS sense it as an obligation to return to their organizations in terms of enriched and creative contributions.<sup>53</sup> Hence, employees feel emotional attachment towards organizations and, at the same time, their intention to stay longer with the same organization increases. Similarly, employees tend to decrease their absenteeism ratio while increasing their selfless attitude once they are sure of reciprocity commitments in terms of emotional attachment and responsibility from the organization.<sup>75</sup> Therefore, POS convinces employees to be innovative in the workplace.<sup>76</sup> Likewise, enhanced organizational support is sometimes scenario-based for employees, which is then taken as a needs-supplies fit, thereby urging employees to be more innovative at work.<sup>53</sup> Additionally, organizational support and care positively affect employees' IWB.<sup>77</sup> By contrast, employees with low organizational support are less likely to engage in IWB.<sup>73</sup> Therefore, we propose the following hypotheses:

Hypothesis 6: POS is positively related to employee IWB.

It is true that the IWB seeks supplements from organizations through POS. According to the law of reciprocity under the theory of social exchange, when employees feel more supported, they make efforts to pay back the organization through IWBs.<sup>74</sup> This is why employees often seek organizational support to be innovative at work.<sup>78</sup> Employees look up to organizations to understand their needs and emotions, disseminate constructive feedback, show concern for their novel ideas, and assist them while solving on-site issues. Hence, satisfied employees express their enhanced loyalty while putting forth innovative ideas and executing them perfectly.<sup>79</sup> Further, organizational support boosts employees' confidence hence they engage themselves in innovative practices that ensure sustained OP.<sup>1</sup> Likewise, if organizations like challenges and are simultaneously supportive of employees, IWB thrives in such circumstances.<sup>61</sup> Furthermore, organizations with a supportive and innovative climate can foster creativity. Therefore, POS enables employees to look for innovative behaviors to cater to problems.<sup>73</sup> Additionally, POS may not directly influence OP but may mediate between other variables. Likewise, IWB is executed with positive results in HEIs.<sup>1</sup> Therefore, we propose the following hypotheses:

Hypothesis 7: POS and IWB mediate the relationship between EI and OP.

## Methodology

### HEIs

The economic growth and societal development of nations depend heavily on the positive progress of HEIs.<sup>80</sup> Therefore, China emphasizes research and developmental activities through its HEIs. Therefore, in the last two decades, the Higher Education Commission of China has planned and initiated concrete trials to improve research and developmental activities. Nonetheless, China needs continuous efforts to be rich in research and apply practical measures to stay competitive, especially in the Western world.<sup>9</sup> Further, time is needed to train academicians in EI so that Chinese HEIs may prosper and compete with Western educational institutes.<sup>1</sup> Academics face numerous trials throughout their careers, such as promotion dilemmas, following and maintaining educational values, compliance with certain attitudes to learn and grow, and tackling pressure situations. Hence, they need EI to pass through all situations successfully.<sup>50</sup> Academics' EI urges them to stay calm and compose difficult situations to be successful against assigned objectives; hence, OP increases.<sup>51</sup> Therefore, this study examines the association between academics' EI and university performance in Chinese HEIs; likewise, POS and IWB are examined as mediators between ascribed relationships.

### Sample and Data Collection

Academicians from lecturers to professors from Hangzhou, Sichuan, and Xian provinces were selected as the target populations. The chosen provinces relish better possible educational facilities; similarly HEIs from these provinces rank higher in terms of gross enrollment ratio.<sup>81</sup> Seven HEIs were investigated in order to collect data from academics across different schools (seven HEIs from each province). Furthermore, Chinese HEIs have focused on assessing academics' EI

in recent years.<sup>1,9</sup> Additionally, the WeChat application and email addresses were utilized as electronic media to deliver questionnaires, and questionnaires in paper form were utilized to collect data from three provinces. Voluntary participants were consulted for valuable responses. Paper-form data collection was managed through third-party services, particularly for data collection from different provinces. Similarly, academicians were consulted before electronic data collection, and questionnaires were distributed through e-groups after consent was obtained from the academicians.

To pursue ethical considerations, officially written and stamped approval was acquired from the Zhejiang Normal University Research Ethics Review Committee to request, interact, and collect data from academicians worthy of catering to the research agenda. Hence, agreed-upon academicians were consulted for data collection on behalf of the approved university's ethical statements. University ethical statement was annexed with the original questionnaire in order to remain upright in relation to ethical concerns. Moreover, this study is not meant to be retrospective, nor does it investigate archived samples.

The convenience sampling technique was followed throughout the questionnaire administration because it is economical and fast in nature, and it is the first choice for social and business research.<sup>82</sup> To be precise, 750 questionnaires were sent out through hired third parties, emails, and e-groups, of which 366 questionnaires (48.8%) were returned; however, 39 questionnaires were incomplete. Therefore, 327 questionnaires (43.6%) were found to be complete for final data analysis. Similarly, quantitative and cross-sectional research methods were ascertained to analyze the data. Further, in compliance with literature, the sample size is satisfactory for the application of structural equation modeling (SEM) to execute the underlying complex path model.<sup>83</sup> Additionally, the data was collected from September 2022 – December 2022.

## Measures

This study examined the available literature and assimilated measurement items from the literature. Furthermore, the assimilated items were gauged with a 5-point Likert scale (1 = “strongly disagree” to 5 = “strongly agree”).

### Emotional Intelligence

It is recommended to utilize an authenticated construct for the central variable for measurement purposes, so that response errors are diminished and the validity/authenticity of the data increase.<sup>9</sup> EI, therefore, is the central variable in this study hence EIS ie, EI Scale (33 items)<sup>84</sup> was utilized for data collection, further internal consistency for mentioned scale ranges from 0.85 to 0.93.<sup>85</sup>

### Organizational Performance

To collect data on the exogenous variable OP, a five-item scale was used.<sup>4,86</sup> Organizational/university performance is evaluated in terms of research efficiency, research standing, academicians' satisfaction, openness and programs/study expansion. Further, sample items were read like “Research productivity of our university is better as compared to key competitors.”

### Perceived Organizational Support

POS is measured using the borrowed eight-item scale<sup>15</sup> (T2, reported by employees). This scale has been further validated through research.<sup>87,88</sup> Further, sample items were read like “My organization takes pride in my accomplishments at work.” Likewise, the internal consistency of the scale was 0.952, which authenticated the scale's strong reliability.

### Innovative Work Behavior

IWB was measured using the borrowed nine-item scale.<sup>89</sup> This scale has been further validated through research.<sup>75,90</sup> Moreover, IWB of employees was measured on three bases ie, “ideas put forward”, “promotion of ideas”, and “application of the ideas”. Further, sample items were read like “Creating new ideas for difficult issues (idea generation).” Likewise, the internal consistency of the scale was 0.951, which authenticated the scale's strong reliability.

## Assessment of Common Method Bias

To avoid common method bias, researchers ensured the confidentiality of survey participants and avoided doubtful responses.<sup>91</sup> Sometimes researcher administering a questionnaire for data collection may influence the responses provided by different respondents in the same general direction, causing the indicators to share a certain amount of common variation. Harman's single factor test is widely used to test common method bias. In Harman's single factor test, the percentage of variance associated with the first component (or factor), is compared against the threshold of 0.5.<sup>92</sup> Additionally, to certify whether the data had a common method bias, researchers applied Harman's single-factor test.<sup>93</sup> Nonetheless, this study exhibited variance by single factor less than 50% hence, common method bias is no longer threatening.

## Data Analysis Technique

Partial least squares structural equation modeling (PLS-SEM variance based SEM approach) was used to analyze the data for this study. The variance-based SEM approach is more appropriate in parallel to the covariance-based approach, as variance-based SEM has no specific limitations related to sample size and distribution.<sup>94</sup> PLS-SEM has certain advantages in practical applications. Further, PLS-SEM has minimum possible limitations in relation to data normality whenever it is practiced.<sup>95</sup> Likewise, PLS-SEM is more appropriate for application in studies that are empirical in nature and examine theories; hence, predictions are made through data analysis.<sup>96,97</sup> PLS-SEM has also been applied to HEIs throughout the years.<sup>49</sup>

PLS-SEM bisects the data analysis process into two stages: assessment of the measurement model and evaluation of the structural model.<sup>96</sup> Assessment of the measurement model focuses on examining the constructs' reliability and validity through a minimal threshold standardized against reliability and validity. In contrast, the evaluation of the structural model focuses on applying the bootstrapping technique to ascertain the framework's predictive relevance. At the same time, path coefficients and statistical significance remain under consideration. Furthermore, Smart PLS-SEM 3.0.8 is utilized for data analysis, while guidelines ascribed under the practical foundation of PLS-SEM<sup>94,96</sup> were followed throughout the process.

## Results

Before embarking on the data analysis process, the received questionnaires were scrutinized and 40 invalid questionnaires were discarded. Therefore, 327 valid questionnaires were considered for the statistical configuration. The demographics are listed in [Table 1](#).

**Table 1** Description of Demographic Variables

Demographic Variables	Frequency	Percentage
Questionnaires sent/delivered	595	100
Questionnaires received back	367	69.6
Discarded questionnaires	40	11.3
Questionnaires useful for analysis	327	61.7
Questionnaires received in paper form	249	67.8
Questionnaires received from e-groups	118	32.2
Gender		
Male	189	51.5
Female	178	48.5
Others	0	0

(Continued)



**Table 1** (Continued).

Demographic Variables	Frequency	Percentage
Age		
Below 30	42	11.4
30–39	161	43.8
40–49	123	33.5
More than 50	41	11.1
Designation		
Lecturer	81	22.1
Assistant professor	139	37.8
Associate professor	121	32.9
Professor	26	7.1
Job tenure in terms of years		
1–10	48	13.1
11–15	172	46.8
16–20	106	28.8
More than 20	41	11.1

## Measurement Model Assessment

A measurement model assessment was conducted to confirm the convergent and discriminant validity of the constructs. In the following, we explain both of these validities. Researchers argue for three conditions through which the convergent validity of the construct is ascertained.<sup>98</sup> (a) 0.6 is the minimum threshold that indicators' loading should exceed, (b) 0.7 is the minimum threshold that composite reliabilities should exceed, and (c) 0.5 is the minimum threshold that each scale's average variance extracted (AVE) should exceed. The minimum thresholds for the explained conditions are presented in Table 2, where the indicator loadings, composite reliabilities, and AVE values exceed the respective figures. On the other hand, discriminant validity is assessed as the square root of the AVE of a latent variable that needs to be greater than the correlations between other considered latent variables.<sup>99</sup> Therefore, Table 3 exhibits discriminant validity indicating that the square root of the AVE of each scale is greater than the correlations between the variables.

Specifically, a measurement model assessment was applied to assess the reliability and validity of the constructs. Therefore, reliability is explained as a blend of indicators' reliability and internal consistency reliability.<sup>94</sup> Therefore, indicator reliability was inferred through item loadings, and the minimum conventional limit for indicator loadings was set as 0.60. Similarly, the internal consistency reliability was examined through composite reliability using the PLS-SEM method. Internal consistency reliability therefore is known to be standardized when composite reliability is ascertained as greater than 0.70.<sup>96</sup> Composite reliabilities for the considered constructs are presented in Table 2, which shows a range of composite reliabilities between 0.805 and 0.961, ascertaining internal consistency reliability.<sup>94</sup> Conversely, construct validity was measured through convergent and discriminant validity assessments using the PLS-SEM method. Convergent validity therefore is assessed through AVE,<sup>96</sup> if and only if the value of AVE is greater than 0.50.<sup>94</sup> Table 2 shows that the constructs' AVE was greater than 0.50 therefore, convergent validity is established. Correspondingly, literature laid a foundation to evaluate discriminant validity, suggesting that the square root of the AVE of each latent variable should be greater than the correlations among the latent variables".<sup>95</sup> Table 3 presents the

**Table 2** Item Loadings, Reliability and Convergent Validity

<b>Factors</b>	<b>A <math>\geq 0.60</math></b>	<b><math>\alpha \geq 0.70</math></b>	<b>CR <math>\geq 0.70</math></b>	<b>AVE <math>\geq 0.50</math></b>
Emotional Intelligence (EI)		0.962	0.965	0.510
EI4	0.653			
EI7	0.698			
EI8	0.708			
EI9	0.752			
EI10	0.698			
EI11	0.628			
EI12	0.750			
EI13	0.789			
EI14	0.720			
EI15	0.784			
EI16	0.674			
EI17	0.727			
EI18	0.736			
EI19	0.624			
EI20	0.817			
EI21	0.796			
EI22	0.738			
EI23	0.676			
EI24	0.715			
EI25	0.816			
EI26	0.720			
EI27	0.734			
EI28	0.678			
EI29	0.661			
EI30	0.681			
EI31	0.669			
EI32	0.754			
Perceived organizational support (POS)		0.901	0.921	0.593
POS1	0.811			
POS2	0.752			
POS3	0.802			

(Continued)

**Table 2** (Continued).

Factors	$A \geq 0.60$	$\alpha \geq 0.70$	$CR \geq 0.70$	$AVE \geq 0.50$
POS4	0.789			
POS5	0.846			
POS6	0.719			
POS7	0.774			
POS8	0.652			
Innovative work behavior (IWB)		0.890	0.914	0.605
IWB3	0.785			
IWB4	0.814			
IWB5	0.695			
IWB6	0.780			
IWB7	0.840			
IWB8	0.752			
IWB9	0.770			
Organizational performance (OP)		0.765	0.850	0.586
OP1	0.755			
OP2	0.760			
OP3	0.795			
OP4	0.752			

**Abbreviations:** EI, emotional intelligence; POS, perceived organizational support; IWB, innovative work behavior; OP, organizational performance.

**Table 3** Discriminant Validity (Fornell–Larcker Criterion)

	1	2	3	4
EI	0.781			
IWB	0.576	0.703		
OP	0.548	0.542	0.791	
POS	0.677	0.509	0.533	0.689

**Note:** Diagonal and italicized figures are the square roots of AVE and below are the correlations between the research constructs.

output generated against the discriminant validity. The measurement model assessment results showed that the examined research model was appropriate for the structural model evaluation.

## Structural Model Evaluation

Structural model evaluation is considered vital once the measurement model assessment is authenticated and practiced as the second phase of analysis in the PLS-SEM method. This evaluation process anticipates the predictive relevance of the framework and assesses the statistical significance of the path coefficients. The structural model was evaluated and the

results were reported according to the literature recommendations.<sup>94,96</sup> Further, specific recommendations<sup>100</sup> were followed to pursue mediation analysis for this study.

To follow this pathway, the statistical significance of the path coefficients was adjudicated in the subsequent section. Furthermore, a bootstrapping technique with 5000 resamples was utilized to assess t-values and p-values and to examine the statistical significance of the path coefficients of assumed associations.<sup>96</sup> Similarly, a mediation analysis against the proposed framework was analyzed.<sup>100</sup> The preacher's recommendations are worthy in relation to compound mediation analysis, as in the case of the considered study, along with the PLS-SEM method.<sup>94</sup> Therefore, we examined the direct effects of EI on OP. Similarly, we investigated the indirect effects of EI on OP through POS and IWB. Numerous studies of HEIs have applied PLS-SEM data analysis.<sup>82,101</sup> The structural path coefficients are shown in Figure 1. The total effects, direct effects/path coefficients, and indirect effects with their respective significance are listed in Table 4.

## Explanation Vis-À-Vis Results

Proposed H1 and inferred results: H1 postulates that EI has a positive effect on OP in Chinese HEIs. Table 4 shows that EI had a positive and significant effect on OP ( $\beta = 0.781$ ,  $t = 6.513$ ,  $p < 0.01$ ). Therefore, positive findings between the independent and dependent variables demonstrate that mediation analysis/effects of POS and IWB can proceed further.

Proposed H2 and H3 and inferred results: It was assumed through H2 and H3 that EI has a positive effect on POS and that POS has a positive effect on OP in Chinese HEIs. The inferred findings showed that EI had a positive and significant

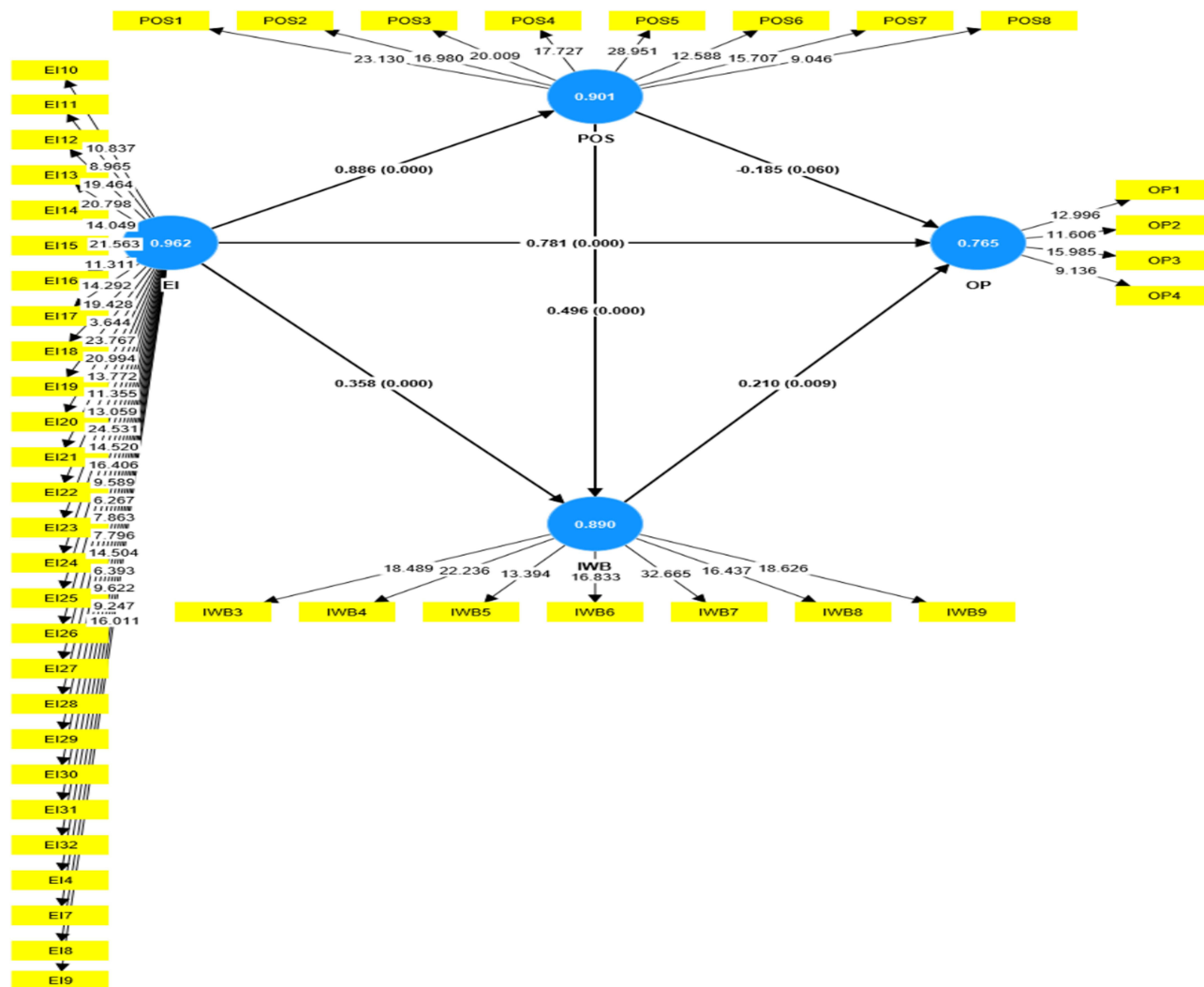


Figure 1 Structural path model.

**Table 4** Representation of Structural Model Results

Total Effect	Coefficients	SE	t values	p values
EI-OP	0.785	0.069	11.297	0.000
Direct effect				
EI-OP	0.781	0.120	6.513	0.000
EI-POS	0.886	0.026	34.066	0.000
EI-IWB	0.358	0.098	3.664	0.000
POS-OP	-0.188	0.099	1.879	0.060
IWB-OP	0.210	0.080	2.630	0.009
POS-IWB	0.496	0.095	5.228	0.000
Indirect effect				
EI-POS-OP	-0.164	0.087	1.888	0.059
EI-IWB-OP	0.075	0.035	2.129	0.033

**Abbreviations:** EI, emotional intelligence; POS, perceived organizational support; IWB, innovative work behavior; OP, organizational performance.

effect on POS ( $\beta = 0.886$ ,  $t = 34.066$ ,  $p < 0.01$ ); however, the POS results were negative and insignificant in relation to OP ( $\beta = -0.185$ ,  $t = 1.879$ ,  $p = 0.060$ ).

Proposed H4 and inferred results: Once H2 and H3 were ascertained, it was straightforward to execute POS as a mediator between EI and OP to crosscheck H4. Table 4 shows that the indirect effects under H4 were analyzed through the bootstrapping process.<sup>100</sup> The inferred results established that the total effect of EI on OP was significant, that is,  $\beta = 0.785$ ,  $t = 11.297$ ,  $p < 0.01$ ; once after the mediation was introduced, the direct effect was found to be positive and significant ( $\beta = 0.781$ ,  $t = 6.513$ ,  $p < 0.01$ ); however, the indirect effect established that EI no longer had a significant effect on OP ( $\beta = -0.164$ ,  $t = 1.888$ ,  $p = 0.059$ ). Therefore, the results establish direct-only no mediation (Zhao et al, 2010) for POS between EI and OP. H4 therefore is rejected.

The structural path model is illustrated in Figure 1.

H5 and H6 and inferred results: It was assumed through H5 and H6 that EI has positive effects on IWB, and that IWB has positive effects on OP in Chinese HEIs. The inferred findings showed that EI had positive and significant effects on IWB ( $\beta = 0.358$ ,  $t = 3.664$ ,  $p < 0.01$ ), and IWB had positive and significant effects on OP ( $\beta = 0.210$ ,  $t = 2.630$ ,  $p < 0.01$ ).

Proposed H7 and inferred results: Once H5 and H6 were ascertained, it was straightforward to execute IWB as a mediator between EI and OP to crosscheck H7. Table 4 shows that indirect effects under H7 were analyzed through the bootstrapping process.<sup>100</sup> The inferred results, that is,  $\beta = 0.075$ ,  $t = 2.129$ ,  $p < 0.01$ , demonstrate that the positive effect of EI on OP is mediated via IWB; hence, H7 is authenticated as per the assumption.

Similarly, once mediation was introduced, the direct effects of EI on OP decreased; however, the total direct effect persisted. Therefore, partial mediation was ascertained because of the decreased but significant direct effect between EI and OP due to IWB.<sup>100</sup> However, in the case of POS, direct-only no-mediation/full mediation was ascertained because of the insignificant indirect effects.

## Discussion

This study examines the direct relationship between EI and OP among Chinese HEIs. Similarly, this study investigated POS and IWB as mediators of these direct associations. Further, to carry out the practical steps to deal with the assumed framework based on literature and theories, academics were requested through personal visits and/or e-groups to fill out questionnaires throughout the data collection process. This process was conducted at HEIs in Hangzhou, Sichuan, and Xian China. The findings were as follows:



H1 postulated that EI would have a positive effect on OP among Chinese HEIs. Empirical research has demonstrated that EI has positive and significant effects on OP in Chinese HEIs. It is imperative to ascribe that research has authenticated the direct and positive association between EI and OP<sup>48,52</sup> nonetheless, this article examined EI parallel to OP in Chinese HEIs for the first time. Higher education is a novel sector investigated in relation to this relationship. Similarly, findings endorse the ability-based theory of EI<sup>3</sup> which reiterates an appropriate management of emotions to face challenges in pursuit of learning and improved personal and OP.<sup>40</sup> Therefore, EI is regarded as a vital enabler for enhancing personal and organizational efficiency and performance. These findings enable and urge HEIs academicians to overhaul the institutional reputation of key stakeholders such as students, society, and competitors. Similarly, academicians navigate personal and others' emotions in pursuit of smooth collegial relationships and, more importantly, to successfully accomplish institutional goals and objectives.<sup>49</sup> This process therefore strengthens collegial interactions and guarantees improved OP and a competitive edge, while emotional stability throughout the organization prevails emotions.<sup>102</sup> This culture further enables the HEIs personnel to have a better emotional comprehension, to understand and avail the available opportunities well, to acquire learning and at the same time contribute towards the superior OP through reaching the organizational goals successfully.<sup>1</sup> Therefore, academics with better EI are vital for superior educational quality, enhanced student and societal trust and satisfaction, openness, and better approachability through enriched research and developmental activities.<sup>50,102,103</sup>

Likewise, H2 and H3 assume that EI has a positive and significant effect on POS; similarly, POS has a positive and significant effect on OP in Chinese HEIs. H4 additionally, POS was assumed to mediate the relationship between EI and OP in Chinese HEIs. The results show a positive and significant effect of EI on POS. However, results showed that POS has a negative and insignificant effect on OP among Chinese HEIs. Similarly, findings establish that the mediating role of POS between EI and OP in HEIs is negative and insignificant. Previous research has demonstrated that EI affects POS positively in HEIs context. Hence, emotionally intelligent academicians facilitate unified learning, improved two-way (either teacher-student or teacher-management) constructive communication, and superior OP.<sup>49</sup> Academicians, therefore, establish an environment that encourages personnel to assess their own and others' emotions in different situations for the sake of knowledge, learning that improves OP, and competitive advantage in HEIs.<sup>51</sup> Previous research, though, has approved POS as a mediator between EI and conflict management in Chinese HEIs.<sup>1</sup> The lack of significant results may be a limitation of HEIs. POS theory suggests that, "organizations contribute more to POS if employees believe that it results from the organization's voluntary actions".<sup>13</sup> Hence, if employees perceive this organizational practice as superficial; consequently, they develop fear/anxiety, which forces them to reduce their commitment to organizational goals.<sup>104</sup> For instance, employees may perceive organizational efforts vis-à-vis their well-being as being benevolent. If employees assess that these organizational efforts are otherwise than genuine efforts to improve their well-being, then the desired effects will likely go unrealized.<sup>105</sup>

H5 and H6 argue that EI has positive and significant effects on IWB. Similarly, IWB has a positive and significant effect on OP in Chinese HEIs. H7, in the same vein, established that IWB mediates the relationship between EI and OP. The findings inferred that EI has a positive and significant effect on IWB. Likewise, the findings have shown that IWB has a positive and significant effect on OP. The IWB seeks organizational emotional support, encouragement, and motivation to generate and execute innovative ideas for improved personal and OP in HEIs.<sup>106</sup> The findings further demonstrate that EI ignites the IWB, which influences the overall OP. Research examined IWB, arguing that better emotional assessment and appropriate management encourages personnel to be innovative, which improves personal and OP while avoiding conflicts in Chinese HEIs.<sup>1</sup> The refereed authors executed the IWB as a mediator between EI and conflict management in Chinese HEIs, with positive and significant results. This study is novel in that it examines the IWB against OP in Chinese HEIs. Hence, after comprehensive deliberation grounded in the componential theory of creativity<sup>39</sup> this study maintains that emotionally intelligent personnel play a vibrant role in the development of creative organizational practices, which in turn augments OP in Chinese HEIs.

Similarly, H6 argues that POS has a positive and significant effect on IWB among Chinese HEIs. The extracted findings establish that POS has a positive and significant effect on IWB. The findings further corroborated that personnel IWB can be ignited through an environment in which personnel perceive they are supported in the production, discussion, promotion, and execution of innovative ideas.<sup>73,106</sup> Nonetheless, there are differing opinions regarding this relationship. Research established that POS has a negative relationship with employee performance, which restricts employees from being innovative in the workplace.<sup>54</sup> Similarly, research has claimed that POS mediates different organizational variables; therefore, it may not directly affect

OP.<sup>13,54,107</sup> Hence, it was difficult to determine whether POS correlated directly with performance or was mediated by other variables for faculty personnel. Hence, this study finds that POS relates to OP directly and indirectly related to OP in HEIs.

## Conclusion, Implications and Limitations

### Conclusion

EI in HEIs enables personnel to assess their own and others' emotions to handle situations appropriately. Hence, EI is assessed as an essence that augments the performance of HEIs. Emotionally intelligent personnel tackle pressure situations and assignments with composure; hence, personnel and organizations excel in difficult times. The law of reciprocity urges organizations to support personnel and assist them throughout their careers; hence, personnel and organizations perform better. EI has fascinated commercial and educational sectors because of its rampant recognition and application. At the same time, HEIs are lagging behind in EI research and developmental activities, including a lesser focus on personnel training in relation to EI and its application throughout organizations in difficult times. The vital reason for this issue is that the HEIs literature lacks a strong focus on EI. Similarly, HEIs have been overlooked in the literature in relation to POS and IWB examinations between EI and OP. Therefore, this study intended to investigate the aforementioned literature gaps through an inclusive examination of EI, POS, IWB, and OP in HEIs. This study specifically examined the effect of EI on OP and similarly investigated POS and IWB as mediators between the aforementioned direct relationships.

Public HEIs from Hangzhou, Sichuan, and Xian China were used to collect data to statistically assess the hypothesized framework. Further data were collected from academics and PLS-SEM was used to analyze the results. These findings corroborate the direct association between EI and OP, and confirm the indirect effects of POS and IWB. Therefore, this study hypothesizes and validates a research framework using empirical evidence. This framework is original, as it comprehensively and logically responds to the shortcomings mentioned in the literature. This study also adds specific managerial and policy implications to EI and OP through POS and IWB.

### Implications

Recently, EI has become an invaluable factor that enables individuals and organizations to perform better. Emotionally intelligent personnel assist higher education in acquiring modern-day knowledge and composure to realize the set goals and research objectives; hence, HEIs perform better than competitors. This process emerges as a satisfactory point for students, societies, and nations. This study therefore targeted academicians from public HEIs of Hangzhou, Sichuan, and Xian China and investigated the crucial variables like EI, POS, IWB and institutional performance; at the same time this study contributed towards narrated theories while enriched literature with specific managerial implications.

This study enriches literature on EI, POS, and IWB. Since the very beginning of ability-based theory of EI,<sup>3</sup> the literature has never investigated EI against OP in Chinese HEIs. However, researchers investigated EI against OP directly outside academia.<sup>48,52</sup> Therefore, this study expands the literature on EI and OP in Chinese HEIs. Similarly, this study empirically supports the ability-based theory of EI<sup>3</sup> via the mediation effects of POS and IWB on the relationship between EI and OP.

Research has abundantly stressed on the need for training and developmental initiatives relating to EI in HEIs.<sup>1</sup> Likewise, academics are a vital part of HEIs who go through pressure situations most of the time; hence, EI becomes valuable in passing through the situation.<sup>49</sup> The prevailing literature, conversely, is almost silent on academicians' emotional conduct that may assist them in perceiving organizational support, to be innovative, and to contribute towards OP in HEIs. This study, therefore, contributes to the void mentioned in the literature and presents certain implications for HEIs' top professionals. This study conducted an empirical investigation to examine academics' EI and its impact on POS and the IWB. This process convinced personnel to be wiser in relation to emotions, anticipated and acquired organizational support, and possible IWB. Personnel's positive organizational perceptions urge them to be innovative, calm, and contribute to enhanced OP. Personnel go through numerous stages in HEIs, such as situational pressure, learning and experiencing new knowledge, and emotional composure. Throughout the process, academics learn to manage their emotions and innovative behavior, which ultimately augments OP. Therefore, it is necessary for HEIs to look for and train individuals with EI; hence, they may represent their articulated and knowledgeable side to contribute towards OP and competitiveness with a sense of organizational support and mastering in IWB.

## Limitations and Future Research Directions

This study examined and presented certain theoretical and practical implications. Similarly, this study revealed future research directions and at the same time discussed certain limitations. This study firstly examined academicians from public HEIs from Hangzhou, Sichuan, and Xian China; which are developed regions in China. Therefore, HEIs in selected regions are provided with enriched research and developmental environments that enable individuals to perceive organizational support, to be more innovative, and to contribute to OP. It is hence argued that such environments work either way ie, assist or resist set organizational objectives. Likewise, dissimilar cultures produce different research findings; therefore the findings of this study may not be generalizable to the HEIs of other cultures. Therefore, to authenticate the findings of this research in other Chinese regions, researchers must examine samples relating to other cultures and regions. Similarly, EI and innovative behavior excel where an organizational culture acts as a facilitative factor. Hence, researchers are advised to examine institutional culture as a moderation of EI to meet organizational goals efficiently. Second, public HEIs were investigated for data collection; hence, the results may not be generalizable to other sectors including private HEIs. Therefore, future researchers are advised to consider this concern and conduct multi-group analysis for precise findings. Third, this study examined academics from Chinese HEIs and China as an emerging economy; therefore, the findings may not be generalizable to HEIs in developed countries. Hence, researchers are advised to produce this framework in developed countries to gain a comprehensive understanding and extension of the opted theories and frameworks. Finally, this study examined public HEIs; therefore, other sectors should be considered to avoid generalizability concerns. Despite these limitations, this study has several implications. This article demonstrated that EI is an invaluable asset of HEIs that augments individuals' cum-OP; hence, HEIs need to shift their focus on training and developmental initiatives concerning EI. Similarly, POS and IWB are instrumental in promoting OP through EI in higher education. EI training and developmental initiatives in Chinese HEIs can enhance the POS, IWB, and OP.

## Ethical Statement

This study complies with the Declaration of Helsinki. Ethical approval was obtained from Zhejiang Normal University Research Ethics Review Committee before data collection. Informed consent was obtained from all participants included in the study.

## Disclosure

The authors report no conflicts of interest in this work.

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