



# **Journal of Chinese Human Resource Management**

Does organizational climate moderate the relationship between job stress and intent to stay?: Evidence from Macau SAR, China Louis Tze-Ngai Vong, Henrique Fátima Boyol Ngan, Patrick Chun-Pong Lo.

### **Article information:**

To cite this document:

Louis Tze-Ngai Vong, Henrique Fátima Boyol Ngan, Patrick Chun-Pong Lo, (2018) "Does organizational climate moderate the relationship between job stress and intent to stay?: Evidence from Macau SAR, China", Journal of Chinese Human Resource Management, Vol. 9 Issue: 1, pp.2-20, https://doi.org/10.1108/JCHRM-09-2017-0022

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## JCHRM 9,1

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Received 13 September 2017 Revised 12 December 2017 Accepted 15 January 2018

# Does organizational climate moderate the relationship between job stress and intent to stay?

# Evidence from Macau SAR, China

Louis Tze-Ngai Vong, Henrique Fátima Boyol Ngan and Patrick Chun-Pong Lo

Tourism College, Institute for Tourism Studies, Macao, Macao

#### Abstract

**Purpose** – The purpose of this paper is to investigate the moderating influence of organizational climate in the relationship between job stress and intent to stay.

**Design/methodology/approach** — This study has used a non-probability sampling design for data collection. A semi-structured questionnaire has been prepared and a street survey has been carried out at popular public places in Macau.

**Findings** – This study shows that stressful employees working in organizations characterized by unsupportive organizational climate had far less desire to stay with the organization than those working in organizations with supportive organizational climate.

**Research limitations/implications** – Street intercept survey is a technique of convenience sampling. This makes it difficult to generalize the study's findings to the entire population.

**Originality/value** – Few studies to date have paid attention to the influence of organizational climate between job stress and intent to stay. The multi-industry context from which the data are collected suggests that the results and findings are useful to managers and practitioners from across a broad range of business sectors.

**Keywords** Organizational climate, Job stress, Intent to stay

Paper type Research paper

#### Introduction

Job stress is a topic of active research because a stressed-workforce can be a burden to organizational performance. Having said so, the cost of workplace stress includes but is not limited to reduced productivity (Singh, 2000), absenteeism (Gray, 2007), compensation claims (Keegel et al., 2009) and direct medical expenses (Guthrie et al., 2010). Job stress can also discourage employees' intention to stay (Vong and Tang, 2017). Unlike other types of stress-induced managerial costs, which are specific measurable expenditures, the cost of losing an invaluable employee cannot be easily measured in quantitative terms. Managing workplace stress is therefore important for business organizations not only because money matters but also because retaining talents is the prerequisite condition to achieving long-



Journal of Chinese Human Resource Management Vol. 9 No. 1, 2018 pp. 2-20 © Emerald Publishing Limited 2040-8005 DOI 10.1108/JCHRM-09-2017-0022

The authors thank IFT Tourism Research Centre of Institute for Tourism Studies Macau for providing the current data set. The data used in this study were extracted from the Centre's Macau Human Resources Monitoring Survey.

term corporate success. This is even truer in a tight labor market in which skilled and professional workers always have the upper hand to choose between multiple employment offers. Organizations that fail to address the problem of workplace stress may find themselves on the defensive when it comes to attracting and retaining talents. For these reasons, academicians and practitioners alike have strived to identify those aspects of the work environment such as work overload, management style and role ambiguity that are the probable sources of job stress, hence to tackle the problem at its root. While it is absolutely appropriate and necessary to combat the stress problem by resolving the stressors (i.e. the antecedents of job stress), job stress can have multiple sources so much so that it is intuitively impossible to eradicate job stress by simply attending to the stressors. Because of this, it is equally important for organizations to come up with effective interventions that can mitigate job stress' negative consequences at the workplace. This means to explore and identify those managerial actions that can buffer in between job stress and its accompanying negative consequences. In this perspective, literature abounds with studies that have identified different forms of interventions likely to moderate job stress' influences at the workplace. These interventions include employee characteristics such as age (Mauno et al., 2013), gender (Jayathilaka and Subasinghe, 2016), organizational rank (Kim et al., 2009) and organizational tenure (Jayathilaka and Subasinghe, 2016; Ciobotă, 2013) as well as managerial actions and programs such as social support (Rathi and Barath, 2013), supervisory support (Karatepe, 2010), workplace initiatives (Wickramasinghe, 2010), managerial orientations (Sumrall and Sebastianelli, 1999) and organizational resources (Marwat et al., 2012). In particular, the management-led activities seemingly convey a message that a "caring" work environment moderates undesired organizational outcomes caused by work-related stress. As an organization's work climate speaks volumes of its workplace pleasantness, one can logically argue that an inclusive and socially supportive organizational climate works to alleviate employees' job stress and helps mitigate its negative consequences on the organization. Accordingly, this study aims to investigate the moderating effect of organizational climate in the relationship between job stress and intent to stay. Although organizational climate's impact on employees' desire to remain employed is widely acknowledged (Ke and Hung, 2017; Mrayyan, 2008) and that the effect of job stress on intent to stay is a well-studied topic (Vong and Tang, 2017; Brom et al., 2016; Gilles et al., 2014), these studies have not critically examined organizational climate as a potent moderator in the job stress – intent-to-stay relationship. In this respect, this study enriches the management literature by exploring the interrelationships among these three variables from a different angle. Besides, the multi-industry context from which the data in this study are collected suggests that the results and findings are useful to managers and practitioners from across a broad range of business sectors. Last but not least, organizational climate studies are by far an under-researched topic in Macau, so this study has added to the organizational climate literature another piece of Macau-based study.

#### Macau background

A decade long of unprecedented economic growth has turned Macau into a city of near-zero unemployment (DESC, Statistics and Census Service, Macau, 2016), thanks to the spectacular casino boom which has transformed this tiny city into the world's premier gaming destination. Many factors are thought to have contributed to Macau's economic miracle, among which China's blessing is fundamentally important. As a special administrative region of China, Macau enjoys the sole privilege to launch casino games on communist soil. Due to geographic proximity, mainland Chinese tourists have traditionally made up the largest proportion of Macau's inbound tourists. Macau's successful casino

development has further drawn many more mainland tourists to Macau to get a taste of Asia' Las Vegas. Although China's recent economic slowdown has cooled down the gambling fever of mainland tourist gamblers, this has not derailed the city's plan to build more eye-catching casino complexes in the years to come (note: at the time of this writing, at least two more new casino complexes are queuing up for grand opening within the next 12 months). This bold attempt of Macau to put all eggs in one basket is largely driven by Beijing's decision to reposition Macau as the world's premier tourism and leisure center. Emboldened by this grand vision, no wonder Macau is still in full gear to perfect its tourism and gaming infrastructure.

As a city whose fate is closely tied to casino tourism, casinos' positive-spillover effect is widely felt across different economic sectors and industries. Work has become so plentiful that the employment market now favors employees over employers as is evident from the number of job vacancies, rising wages and rampant job-hopping. Many locals see this time period as the strategic window to seek for jobs that guarantee better career opportunities. This makes job-hopping within and across economic sectors the new norm in the job market. Meanwhile, to win the war for talents, business enterprises have enticed workers with attractive salary packages, fast-track careers and training opportunities. However, in what seems to be an employees' market in Macau nowadays, salaried workers are reportedly facing rising work pressure due to increased work demand (MNACecilia U, 2017). During this time in which Macau does not lack well-paying jobs, it has become an easy decision for workers to leave their unpleasant jobs and try their luck elsewhere. This view is supported by some scholars (Rato and Davey, 2012) who estimated that the percentage of Macau workers with turnover intention was at least three times higher than in most developed countries. In another study, Chan et al. (2014) concluded that job burnout was a salient factor affecting Macau workers' turnover intentions. Job stress has therefore become a costly problem for business enterprises wishing to maintain a stable workforce. In short, because job opportunities have become plentiful, employees who feel stressed out by their jobs may become less willing to stay with their employers. Creating an engaged workforce is therefore a pressing issue faced by many organizations. In this regard, the more aggressive organizations have strived to cultivate a work environment that helps employees combat challenges, including job stress, in their daily work. It could be said that "helping employees thrive at their work" has become a common motto to attract and retain talents in Macau's business communities. In a city where job growth has outpaced population growth for already many years, employee decision to stay or leave an employer will be affected by many factors, among which, the pleasantness of the work environment may count as much as, if not more than, the monetary incentives that come along with the work.

#### Literature review

Iob stress

Job stress is said to occur when employees feel unable to cope with work demand and organizational pressure (Hart and Cooper, 2001). A review of the research literature on job stress suggests that job stress is a topic of active research because it has the potential to jeopardize personal health and organizational effectiveness. Although job stress can be triggered by many reasons, these reasons can be broadly divided into two categories, namely, personal and organizational factors (Takahashi and Takahashi, 2010). Personal factors include but are not limited to individual's coping ability (Dhar and Dhar, 2010), *locus* of control (Chen and Silverthorne, 2008; Huang, 2006), Type A behavior (Jamal, 1990; Jamal, 2005), personality traits (Kim *et al.*, 2007) and self-esteem (Lee *et al.*, 2013). Organizational factors include work conditions (Schreyer and Krause, 2016), job demand and job control

(Chiang et al., 2010), job creativity requirements (Hon, 2013) and supervisory support (Hon et al., 2013), to name just a few. The effect of job stress cannot be overlooked. Many studies have revealed its adverse impact on employees' physiological health and well-being (Sang et al., 2013; Maslach, 2006). More precisely, high-stressed individuals were found to suffer from cardiovascular diseases (Welker-Hood, 2006), poor mental health (Park et al., 2016), headaches, fatigue, ulcers and blood pressure (Krone et al., 1989). Job stress also takes heavy toll on employees' psychological well-being. Past studies indicated that stressed workers were more likely to suffer from low self-esteem (Yang et al., 2016) therefore resulting in a sense of powerlessness and despair (Cooper et al., 2001). They were also more likely to experience depression (Reed, 2014), as well as anxiety, frustration and emotional exhaustion (Armstrong and Griffin, 2004; Kim, 2008). Moreover, when employees are unable to harness work stress, they are more likely to experience work–family conflict (Lui et al., 2017; Rabenu et al., 2017). Job stress' negative impact on organizational performance is also widely noted. Common types of stress-induced organizational dysfunction include health-care costs (Guthrie et al., 2010; Manning et al., 1996), workplace accidents (Salminen et al., 2014; Welker-Hood, 2006), job dissatisfaction (Rössler, 2012; Kim et al., 2009), lower organizational commitment (Chiang and Liu, 2017; Jamal, 1990), poor service quality (Humborstad et al., 2007), reduced productivity (Singh, 2000) and turnover intentions (Hwang et al., 2014).

#### Intent to stay

Intent to stay refers to employees' conscious and deliberate willingness to stay with the organization (Tett and Meyer, 1993). Mayfield and Mayfield (2018, p. 84) added that intent to stay "provides a bellwether measure of a person's general feeling of content with a job." Organizations concern about this issue because intent to stay can be seen as a precursor of workforce stability and mirrors employees' level of commitment to the organization. By understanding what influences employees' intent to stay, organizations are in a better position to implement measures that enhance workforce loyalty and reduce employee turnover. Having said so, many factors are found to influence employees' intention to stay. Personal factors include personality trait (Chen et al., 2016); age (Gambino, 2010), education (Kash et al., 2010), marital status (Johnson and Favreault, 2001; Kim and Feldman, 2000), kinship responsibility (Abualrub, 2010), job tenure (Gambino, 2010), employee health (Shacklock and Brunetto, 2011) and spouse adjustment and support (Black and Stephens, 1989). Organizational factors include job satisfaction (Yarbrough et al., 2017), job mentoring (Naim and Lenka, 2017), intrinsic motivation (Kim and Jogaratnam, 2010); conflict management style (Al-Hamdan et al., 2016), perceived organizational support (Cho et al., 2009; Naim and Lenka, 2017), perceived equity (Berg, 1991), supervisory leadership (Kim and Jogaratnam, 2010) and job stress (McGilton et al., 2013). With regard to job stress, many studies have provided consistent evidence indicating that job stress is strongly associated with employees' desire to remain employed (Gilles et al., 2014; Vong and Tang, 2017; Brom et al., 2016; Hwang et al., 2014). More precisely, they have consistently reported a negative relationship between these two variables, meaning that the higher the job stress, the less desire for the employee to stay with the organization. Therefore, this study posits the following hypothesis:

H1. Job stress is negatively correlated with intent to stay.

#### Organizational climate

Ehrhart et al. (2014, p. 2) defined organizational climate as "the shared meanings organizational members attached to events, policies, and practices, and procedures they

experience and the behaviors they see being rewarded, supported, and expected." Organizational climate differs from organizational culture in which the latter dictates behaviors (Glazer, 2016), whereas the former provides a frame of reference for individuals to make sense of organizational life (Joyce and Slocum, 1984). Other scholars also argued that "organizational culture is much broader than organizational climate" (Ehrhart and Schneider, 2016, p. 1) because "climate is only a surface manifestation of culture" (Schein, 1990, p. 109) and that it only narrowly focuses on the shared perceptions of employees instead of delving into the deeper causal aspects of how the organization functions or why members in the organization behave the way they do. Because organizational climate "lent itself to direct observation and measurement" (Schein, 1990, p. 109), there exist different approaches and instruments to evaluate this notion (Peña-Suárez et al., 2013). Although organizational climate is measured differently with different scales, it is generally agreed that organizational climate is a multidimensional impression employees form of their workplace (Armstrong, 2003).

Decades of research have consistently shown that organizational climate perceptions affect employee behavior and consequently organizational performance. At the business level, organizational climate influences organizational performance (Bufquin *et al.*, 2017), workplace/production safety (Jiang and Probst, 2015) and customer satisfaction (Davidson and Manning, 2003), to name just a few. At the employee level, it was found to affect job satisfaction (Thakre and Shroff, 2016; Khan *et al.*, 2013), job commitment (Hassan and Rohrbaugh, 2012), creativity/innovation (Ibegbulam *et al.*, 2017) and job performance (Pritchard and Karasick, 1973). Some studies also indicated that negative perceptions of work environment would trigger employees' intention to quit or withdraw job (Liou and Cheng, 2010). However, if employees perceive positively of their work climate, then the chances for them to remain with the organization would increase (Mrayyan, 2008). Therefore, this study posits the following hypothesis:

H2. Positive organizational climate is positively correlated with intent to stay.

Besides, there are studies that have adopted a different line of inquiry by exploring the intervening role of organizational climate in between various kinds of organizational predictor–criterion relationship. Specific studies under this research direction include assessing its moderating effect between organizational sustainability and total quality management (Alharbi *et al.*, 2017), innovation and creativity (Ekvall, 1996), transformation leadership and creativity (Yildiz and Özcan, 2014), post-training interventions and transfer of training (Richman-Hirsch, 2001) and safety knowledge and safety performance (Smith-Crowe *et al.*, 2003). All these studies have provided converging evidence indicating organizational climate as a potent moderator that can influence organizational outcome. Therefore, this study posits the following hypotheses:

H3. Organizational climate moderates the relationship between job stress and intent to stay in that stressed employees exhibit less desire to stay with organizations with negative organizational climate.

#### Methods

This study used a non-probability sampling design for data collection. A total of nine college students, all of whom were bilingual speakers of Chinese and English, were employed and trained as interviewers to carry out a street intercept survey during the summer months, weekdays and weekends inclusive. To carry out this fieldwork, the interviewers were assigned to station at specific sites in the city, such as urban

squares, busy streets, densely populated neighborhoods and commercial districts. These survey sites were selected because they were popular public places with high pedestrian traffic volume, therefore making it more possible to extend the reach of the survey to different constituent groups of a society. Because a significant portion of Macau labor force is composed of import labor (DESC, Statistics and Census Service, Macau, 2016), this study indiscriminately included both domestic and foreign workers as potential survey respondents. When a potential respondent agrees to be interviewed, the interviewer would right away use a preliminary screening question "Are you a full-time worker in Macau?" to ascertain the respondent's status as a qualified participant. When the participant's employment status is confirmed, the interviewer would then proceed with the interview. To standardize the data collected, a semi-structured questionnaire was used. This survey tool was divided into three parts: the first part of the questionnaire solicited information on respondents' current work status, such as industry type, job position, length of service, working conditions as well as reasons to resign from previous job (open-ended). The second part of the questionnaire measured respondents' job stress level, their intention to stay with the current employer and their perceptions of organizational climate at the workplace, among others. The final part of the questionnaire asked for respondents' background information, such as age, gender, education and income level, residency status and other household information.

To ascertain the reliability of this study, multi-item measures were used to assess the constructs of job stress, intent to stay and organizational climate. Job stress was measured with the job stress scale (JSS) developed by Lambert *et al.* (2006), employees' intention to stay was measured using the intent to stay scale (ITS) (Hunt *et al.*, 1981) and organizational climate was measured using Newman (1977)'s perceived work environment (PWE) scale. These multi-item scales were used in this study because they have been proven to be reliable instruments in the past studies (Shaw and Martin, 1989; Vong and Tang, 2017; Cronan *et al.*, 1985; Peña-Suárez *et al.*, 2013). Besides, they are also relatively short and easy to administer. Respondents who score high on these scales (i.e. JSS, ITS and PWE) can be interpreted as the ones who exhibit high level of job stress, intent to stay and also perceive positively of their organization's work climate. As these scales were originally prepared in English, they were translated into Chinese language to facilitate the survey administration (note: Macau population is predominantly Chinese). Back translation was used to assess the accuracy of the translated text. The data set was analyzed using SPSS.

#### Findings

Table I shows respondents' sociodemographic characteristics. Occupational wise, most respondents had indicated working in the wholesale and retail sector (22.0 per cent), followed by gaming and casinos (16.3 per cent), finance (13.4 per cent) and public administration and social security (11.7 per cent). Relatively fewer respondents were affiliated with the business of hotels and resorts (6.8 per cent) and travel agencies and tour companies (2.3 per cent). At first glance, the occupational distribution in this sample seems to run contrary to the perceived reality that many Macau people today count upon casino and hospitality jobs, instead of wholesaling or retailing, to make a living. However, if one cognizes that many casinos in Macau are de facto "all-in-one" mega complexes comprising the elements of gaming, entertainment, hospitality and food and beverage services, then it is not hard to fathom that the occupational profile in this sample is, in one way or another, reflecting

Composition	N	(%)
Gender Male Female	216 298	42.0 58.0
Residency status Permanent Non-permanent Non-resident, worker permit holder	455 22 37	88.5 4.3 7.2
Age 18-27 28-37 38-47 48-57 58 or above Missing	247 143 67 44 11 2	48.1 27.8 13.0 8.6 2.1 0.4
Education Up to primary school Up to high or vocational school Bachelor's degree or above	23 245 246	4.5 47.7 47.9
Monthly income (MOP) <10,000 10,000-19,999 20,000-39,999 >40,000 Missing	147 275 80 8 4	28.6 53.5 15.6 1.6 0.8
Industry type Gaming and casinos Hotels and resorts Travel agencies and tour companies MICE Leisure and entertainment Manufacturing Electricity, gas and water supply Construction Wholesale and retail Food and beverage Real estate and business activities Finance Public administration and social security Transport, storage, and communication Cultural, arts and creative Others	84 35 12 3 4 4 8 9 113 40 21 69 60 26 6 20	16.3 6.8 2.3 0.6 0.8 0.8 1.6 1.8 22.0 7.8 4.1 13.4 11.7 5.1 1.2 3.9
	Gender Male Female  Residency status Permanent Non-permanent Non-resident, worker permit holder  Age 18-27 28-37 38-47 48-57 58 or above Missing  Education Up to primary school Up to high or vocational school Bachelor's degree or above  Monthly income (MOP) <10,000 10,000-19,999 20,000-39,999 >40,000 Missing  Industry type Gaming and casinos Hotels and resorts Travel agencies and tour companies MICE Leisure and entertainment Manufacturing Electricity, gas and water supply Construction Wholesale and retail Food and beverage Real estate and business activities Finance Public administration and social security Transport, storage, and communication Cultural, arts and creative	Sender   Male   216     Female   298     Residency status     Permanent   455     Non-permanent   22     Non-resident, worker permit holder   37     Age   18-27   247     28-37   143     38-47   67     48-57   44     58 or above   11     Missing   2     Education     Up to primary school   23     Up to high or vocational school   245     Bachelor's degree or above   246     Monthly income (MOP)     < 10,000   147     10,000   147     10,000   147     10,000   19,999   275     20,000-39,999   80     > 40,000   8     Missing   4     Industry type     Gaming and casinos   84     Hotels and resorts   35     Travel agencies and tour companies   12     MICE   3     Leisure and entertainment   4     Manufacturing   4     Electricity, gas and water supply   8     Construction   9     Wholesale and retail   113     Food and beverage   40     Real estate and business activities   21     Finance   69     Public administration and social security   60     Transport, storage, and communication   26     Cultural, arts and creative   66

the influence of Macau's casino tourism in totality. By adding the occupation percentages for gaming and casinos (16.3 per cent), hotels and resorts (6.8 per cent), travel agencies and tour companies (2.3 per cent), MICE (0.6 per cent), entertainment and leisure (0.8 per cent) and food and beverages (7.8 per cent) – many jobs found in these sectors are closely tied to casino tourism – it becomes obvious that respondents'

occupational pattern is skewed toward casino tourism. In view of the above, it can arguably be said that the survey result in this study has generally reflected the occupational pattern or structure of Macau population. Income wise, the largest subgroup (53.5 per cent) had reported earning a monthly salary anywhere in the range of MOP10,000 to 19,999. This result is consistent with Macau population's median monthly income of MOP15,000 (DESC, Statistics and Census Service, Macau, 2016). Respondents earning at and above MOP20,000 constituted another 17.2 per cent of the sample (i.e. MOP20,000-39,999: 15.6 per cent; MOP > 40,000: 1.6 per cent). However, 28.6 per cent of respondents had indicated that they were earning less than MOP10,000, which is far below Macau's median monthly income. Besides, it is important to draw attention to the fact that the age distributions in this study were skewed toward young ages. Particularly, respondents aged 18-27 constituted 48.1 per cent of the entire sample. That said, when adding together with those respondents aged 28-37, over 76 per cent of respondents in this study were below age 40. As will be discussed later, this heavily skewed age distribution needs to be attended to, if not rectified, before which impartial analysis and meaningful interpretation can be carried out.

Table II shows respondents' evaluations of job stress, intent to stay and organizational climate at the workplace. In particular, the high alpha scores of the multi-item scales showed that they are good measures of their respective construct. Table III shows the Pearson product-moment correlations among job stress, intent to

Measures	Mean	SD	Alpha score
Job stress	2.7191	0.67433	0.720
A lot of time my job makes me very frustrated or angry	2.535	0.9950	***-*
I am usually under a lot of pressure when I am at work	2.708	1.0394	
When I am at work, I often feel tense or uptight	2.578	0.9442	
I am usually calm and at ease when I am working (note: reverse scored)	3.066	1.0143	
There are a lot of aspects of my job that make me upset	2.708	0.9115	
Organizational climate	3.3528	0.69237	0.833
Company management is open, supportive, and considerate	3.296	0.9209	
Co-workers are trusting, friendly and co-operative	3.625	0.9798	
Employees show concern for the work of their work, try to get ahead and			
are involved in their work	3.393	0.8267	
Employees have the proper background training and "know-how" to do			
what is expected of them to do	3.368	0.8847	
Employees take part in decisions that affect their work situation Rewards such as promotions and salary increases are based on	3.130	0.9954	
performance rather than other considerations such as favoritism	3.305	1.0039	
Intent to stay	3.1770	0.77659	0.703
I will definitely leave this organization in the next year (note: reverse			
scored)	3.918	1.0565	
It is very unlikely that I would ever consider leaving this company If I were completely free to choose, I would prefer very much not to	2.547	1.1023	
continue working for this organization (note: reverse scored)	3.403	1.1271	
	2.840	0.9782	

disagree) to 5 (strongly agree)

Table II. ents' selfent of job nt to stay nizational ate at the

workplace

stay and organizational climate. As was expected, job stress was significantly negatively correlated with intent to stay (r = -0.123), that is to say, the higher the level of job stress, the lower the tendency of employees to stay with the organization. The study also detected a significant positive correlation between organizational climate and intent to stay (r = +0.453). This means a positive organizational climate would help retain employees (note: high score in organizational climate indicates a positive/ supportive work climate for workers and vice versa). Overall, these findings confirmed the widely accepted notions that job stress has serious adverse effect on employees intent to stay, whereas a supportive and caring organizational climate is conducive to increasing employees' intent to stay. H1 and H2 were therefore confirmed. On the other hand, the study was unable to detect significant correlation between job stress and organizational climate. This result is not inconsistent with past studies (Nasurdin et al., 2006), which were also unable to detect correlation as such. In fact, in numerous studies, job stress and organizational climate have been frequently designated as independent variables along each other for predicting the outcome of interest. This tellingly suggests that job stress and organizational climate naturally cannot be too strongly related to each other otherwise the problem of multicollinearity would have jeopardized the interpretation of the results in these studies.

To test the hypothesis that organizational climate moderates the relationship between job stress and intent to stay, moderation analysis was conducted. When performing moderation analysis, some scholars (Aiken and West, 1991) recommended centering the predictor variables before which these predictors could be used to calculate the interaction term central to moderation analysis. The major benefit, so the argument goes, is that this mean-centering procedure can mitigate the effect of multicollinearity among the predictor variables. Because this arithmetic procedure has become a commonplace in moderation analysis, the investigators had decided to follow suit even though this study identified only a weak correlation (r = -0.031, Table III) between job stress and organizational climate. With this being said, this study used mean-centering approach, i.e. subtracting a variable's mean average from each value assigned to that same variable, to center both the independent variable (i.e. job stress) and the moderating variable (i.e. organizational climate). As a result, the two newly created centered variables (i.e. centered-job-stress and centered-organizational-climate) were used to calculate the interaction term. Besides, to reduce the cofounding effect of irrelevant variables in the moderation analysis, respondents demographic characteristics were designated as control variables. This procedure was particularly important because it was noted earlier that some of these demographic variables, namely, age and gender, were detected with skewed distribution (Table I). All told, moderation analysis was performed using hierarchical linear regression with three distinct stages. In Stage 1, the control variables, namely, age, gender, income and education, were simultaneously entered into the first block of the regression analysis. This aims to measure the extent of influence that such variables might have on the outcome variable, i.e.

Measures	Mean	SD	Job stress	Org. climate	Intent to stay
Job stress Organizational climate Intent to stay	2.7191 3.3528 3.1770	0.67433 0.69237 0.77659	1.00	-0.031 1.00	-0.123** 0.453** 1.00

**Table III.**Correlation matrix of the constructs

**Note:** \*\*Correlation is significant at the 0.01 level (two-tailed)

climate

**Organizational** 

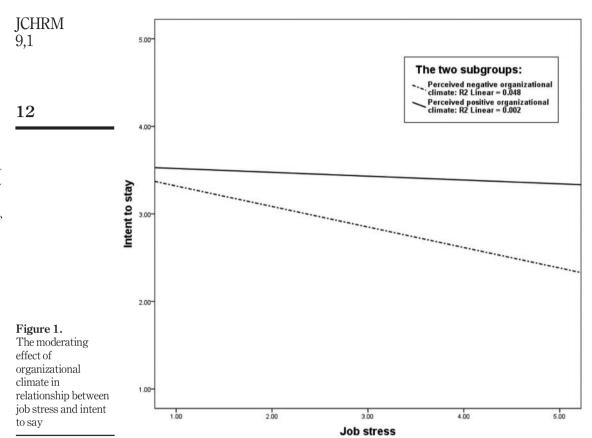
intent to stay. Because these variables were categorical in nature, they were converted into dummy variables to fit the conditions for regression analysis. Next, job stress and organization climate were entered into the second block of the regression analysis to reveal their main effects as predictors. Finally, the interaction term derived by multiplying the centered-job-stress and centered-organizational-climate was entered into the last block of the regression analysis. This serves to detect the significance of moderation effect. As a result, three regression models (Models 1, 2 and 3) were generated.

As shown in Table IV, all the three models were significant (p < 0.05). The Dubin–Watson statistic (DW = 2.094) was in the acceptable range meaning that no autocorrelation was detected in the regression models. Precisely, the control variables in Model 1 explained 8.3 per cent of the variance in the outcome variable, i.e. intent to stay. However, when job stress and organizational climate were included as predictors in Model 2, they could explain an additional of 19.5 per cent of the variance in the outcome variable. In other words, even controlling for respondents' demographic characteristics, job stress ( $\beta = -0.136$ , p < 0.05) and organizational climate ( $\beta = 0.428, p < 0.05$ ) were still able to generate significant main effect on intent to stay. Last but most importantly, Model 3 detected a significant interaction effect ( $\beta = 0.078$ , p < 0.05) with the interaction term explaining an additional 0.6 per cent of the variance in the outcome variable. All included, this shows that the interaction term was another significant predictor of intent to stay above and beyond the main effects.

A schematic representation was then used to illustrate the moderating effect of organizational climate in between job stress and intent to stay (Figure 1). To construct this

Predictor variables	Model 1 standardized coefficients	Model 2 standardized coefficients	Model 3 standardized coefficients	
Gender (reference category: male) Age Cohort (referent category: age 18-27)	-0.047	-0.061	-0.058	
Age 28-37 (1, yes; 0, no) Age 38-47 (1, yes; 0, no) Age 48-57 (1, yes; 0, no) Age 58 or above (1, yes; 0, no)	0.101** 0.095** 0.071 0.123**	0.103** 0.100** 0.076 0.061	0.102** 0.093** 0.071 0.068	
Monthly income (referent category: Below MOP10,000) MOP10,000-19,999 (1, yes; 0, no) MOP20,000-39,999 (1, yes; 0, no) MOP40,000 or above (1, yes; 0, no)	0.134** 0.217** 0.096**	0.103** 0.188** 0.070	0.107** 0.191** 0.068	
Education (referent category: primary school) High school to vocational school (1, yes; 0, no) Bachelor or above (1, yes; 0, no) Job stress Organizational climate Centered-job-stress × centered-organizational-climate	-0.043 -0.012	-0.092 $-0.111$ $-0.136**$ $0.428**$	-0.095 $-0.116$ $-0.143**$ $0.429**$ $0.078**$	Ta
$R^2$ $R^2$ change Note: ** $p < 0.05$	0.083 0.083	0.278 0.195	0.284 0.006	Hiera regression a of predictors o

able IV. rarchical analysis of intent to stay



schematic representation, the original sample was spilt into two exhaustive subgroups based on respondents' evaluation of their organization's work climate. In this regard, the two subgroups were labelled, respectively, "perceived negative organizational climate" and "perceived positive organizational climate." The former pertained to those respondents who viewed relatively negatively about their organization's work climate. The latter included those who held relatively positive perceptions about their organization's work climate. As is graphically illustrated in Figure 1, a negative relationship between job stress and intent to stay was noted across the two subgroups with varying strength of association. This means the higher the job stress, the lower the employees' intention to stay with the organization. That said, however, the subgroup labeled as "perceived negative organizational climate" had exhibited a significant negative correlation (r = -0.22, p < 0.05, n = 257) between job stress and intent to stay, whereas such correlation became weak and non-significant for the "perceived positive organizational climate" group (r = -0.04, p > 0.05, n = 257). Based on these results, it could be said that stressed employees working in organizations described as having negative or unsupportive organizational climate had much less desire to stay with the organization than those equally stressed employees working in organizations that emphasized a positive or supportive organizational climate. This is not difficult to understand because employees usually look to those organizations that support, care and respect employees as better places to work for. All told, the moderating effect of organizational climate in between job stress and intent to stay was established. H3 was therefore confirmed.

#### Conclusions and recommendation

This study furthers our understanding of the job stress-intent-to-stay relationship by identifying organizational climate as a variable that can alter the strength of this relationship. Although there is already a voluminous amount of research examining the link between job stress and intent to stay, very few studies have attempted to find out what factors regulate the strength of this relationship. Similarly, organizational climate studies are important in their own right. In this regard, some of these studies used organizational climate to predict an outcome of interest. Others have examined its role in between various predictor-criterion relationships. However, very few studies have critically examined work climate's influence in the job stress-intent-to-stay relationship. This study thus seeks to fill this gap in the literature. By and large, the findings in this study are consistent with past studies. First, this study has reconfirmed previous research by identifying job stress as a salient factor influencing employees' intention to stay. In this regard, Macau employees are no different from the rest of the global workforce. That is to say, like employees elsewhere, Macau employees' desire to remain employed with the organization weakens when they are faced with increasing work stress. Second, this study has identified a significant positive correlation between organizational climate and intent to stay. This means a positive organizational climate is necessary to keep the employees engaged. This finding generally supports the wider notion that organizational climate affects' employees' commitment to the organization. On the other hand, and perhaps more importantly, this study has contributed to the research literature by identifying organizational climate as a moderator affecting stressed workers' intention to stay. Precisely, the study shows that a positive organizational climate significantly weakened, if not reversed, the negative relationship between job stress and intent to stay. In other words, a positive organizational climate serves to support or encourage stressed employees to remain with their organizations. On the contrary, stressed employees' intention to stay was weakened further in those organizations diagnosed with relatively negative organizational climate. This was evidenced by comparing the strength of the correlation between job stress and intent to stay for the whole group (r = -0.12, p < 0.05,n = 514) and the "perceived negative organizational climate" subgroup (r = -0.22, p < 0.05. n=257). The relatively strong correlation found in this subgroup indicates that negative organizational climate further aggravates stressed workers' already weakened intent to stay. Besides, the value of this research also lies in the fact that this study is much broader in scope as respondents' occupational characteristics were very much diverse, covering jobs related to different economic sectors and industries. In this respect, this study complements previous Macau-based job stress studies (Wan, 2013; Wong and Lam, 2013; Taomina and Kuok, 2009) whose scopes are generally more narrowly defined.

This study has managerial/ practical implications for Macau businesses. Since casino liberalization became a reality over a decade ago, Macau's economy has continued to enjoy robust expansion. Over the years, many firms have jumped on the bandwagon to get a fair share of the economic rewards all the while employees have become more stressed (MNACecilia U, 2017). Despite rising salaries and bonuses, Macau employees' intent to stay has weakened over the years (Lo, 2017). Thus, even though many Macau firms continue to recruit and retain talents by giving out aggressive compensation packages, it is doubtful whether monetary rewards alone can retain the already-stressed employees. This is particularly true at a time in Macau when jobs are plentiful and job-hopping has become

rampant. Moreover, from a firm's perspective, it is also financially imprudent to compete for manpower through escalating wages and salaries to unreasonably high levels. Instead, as this study has shown, firms can leverage organizational climate to retain talents therefore building a more stable workforce. During the time when Macau economy is rapidly growing, a positive organizational climate draws members of an organization together and enables the firm to stay focused and respond more quickly to any marketplace changes. Conversely, firms that are always in a state of losing skilled and trained workforce become distracted, and may find it difficult to react to any emerging opportunities in a timely fashion. Moreover, firms that are always struggling to replenish manpower may need to shoulder the additional cost of recruiting, hiring and training replacement employees. All told, it is fairly reasonable to argue that firms with positive organizational climate are in a better position to compete in a rapidly changing economy. Finally, there are many ways in which organizations can nurture a positive work environment. Management programs/activities such as friendly buddy systems, employee assistant programs, mentoring programs and employee friendly work practices are just some of the many organizational activities that can transform an ordinary workplace into an extraordinary place for employees. Managers can selectively incorporate these time-tested practices to cultivate a positive work climate that benefits both the organization and the employees.

#### Limitations

Street intercept survey is a technique of convenience sampling. This makes it difficult to generalize the study's findings to the entire population. Besides, a close examination of respondents' profile suggests that the entire sample was skewed toward young ages. Although this problem had been addressed during the data analysis stage by controlling respondents' demographic characteristics, one is still advised to take caution when interpreting this study. The use of translated measurement scales represented another type of research limitations because translated scales in research studies do raise concerns about the accuracy of the translated text. There is always a potential risk of losing the original meaning in some measurement items. All told, future validation studies based on probability sampling design should be conducted to reconfirm the propositions put forward in this study.

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#### Corresponding author

Louis Tze-Ngai Vong can be contacted at: louis@ift.edu.mo