



{ MUDIMA }



Hardiness as the Moderator in the Effect of Mental Workload on Job Stress in Frontline Bank Employees in the Pematang Siantar Area

Rizty Desta Mahestri^{1*}, Gustiarti Leila², Etti Rahmawati³

Universitas Sumatera Utara

Corresponding Author: Rizty Desta Mahestri mahestri88@gmail.com

ARTICLE INFO

Keywords: Job Stress, Hardiness, Mental Workload, MRA, Regression

Received : 5 August

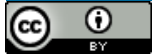
Revised : 18 August

Accepted : 18 September

©2023 Mahestri, Leila, Rahmawati:

This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International License](#).

[Creative Commons Attribution 4.0 International License](#).



ABSTRACT

The present study aimed to examine the role of hardiness in the relationship between mental workload and job stress among frontline bank employees in the Pematang Siantar area. This correlational study involved 53 frontline bank employees in the Pematang Siantar area. Data were collected through a self-report measure using three scales, namely the Job Stress Scale (Rollinson, 2005), the Mental Workload Scale from Reid (in Wickens & Holland, 2000), and the Hardiness Scale based on Kobasa's theory (in Rollinson, 2005). The results of data analysis using moderated regression analysis (MRA) showed that hardiness had a significant effect on the role of mental workload on job stress in frontline bank employees in the Pematang Siantar area. Further testing with multiple regression analysis showed a significant effect between the dimensions of mental workload and characteristics of hardiness on job stress in frontline bank employees in the Pematang Siantar area.

INTRODUCTION

Job stress is considered a psychosocial problem in the workplace (Girdano, 2005). To date, job stress still becomes a significant and actual problem for modern companies (Rafferty & Griffin, 2006; Safaria, 2011). Job stress experienced by employees is commonly related to events and conditions in the work environment (Rollinson, 2008). Job stress generally appears as a form of emotional and physical reaction to demands from within or outside the organization (Greenberg & Baron, 2003). The presence of job stress is a phenomenon that attracts considerable interest from researchers.

Job stress can result in negative impacts and cause problems in several aspects of employees characterized by physiological, psychological, cognitive, and behavioral effects (Rollinson, 2008). Several studies have found that stress leads to increased work leave due to illness, decreased body immunity, lack of creativity, increased number of work errors, poor decision-making, employee disloyalty, reduced productivity, increased risky behavior (e.g., smoking and alcohol), absenteeism, and resignation (Azagba & Sharaf, 2011; Nakata, 2012; Subramanian et al., 2013; Suciati & Minarsih, 2015).

Job stress can occur in various sectors of employment. The banking industry is one of the rapidly growing employment sectors with a high potential for job stress. According to a study by Sultan et al. (2014), bank employees are prone to experiencing job stress due to increased competition and demands to provide the best service.

Other studies have reported that public bank employees experience more severe job stress (Ayyappan & Vadivel, 2013; Rao & Borkar, 2012). A study conducted by Croucher et al. (2013) also found that bank employees were more likely to experience pressures in their work life, which can lead to stress.

The banking industry in Indonesia is also not resistant to job stress. Several studies on job stress in the banking industry reported that the job stress of bank employees in Indonesia was relatively high (Mahardiani & Pradhanawati, 2013; Permainiyas,

2012). In line with that, the Chairman of the Trustees of the Indonesian Consumers Foundation (YLKI), Zumriton K. Soesilo, considered that the stress of banking financial service employees was relatively severe (Harian Digital Tempo, June 3, 2014). This statement was based on a study conducted by YLKI. Based on this research, the target customers determined by the bank were relatively high, causing a highly competitive situation among banks to obtain customers. The large number of banking companies in Indonesia causes fierce competition between banks. Thus, frontliners are required to be able to attract customers in order to achieve the annual performance target of the branch office that has been set. The ability of frontliners to fulfill the target will also be assessed in the performance appraisal.

In addition, high demands of professionalism from companies often cause problems for employees. Several studies have found that this condition will lead to a heavy workload for employees (Ajala, 2012; Dowse & Underwood, 2001; Tabassum et al., 2011). The workload is divided into two types, namely physical and mental workload. Meshkati (in Hancock & Meshkati, 1988; Subramanian et al., 2013) creates this division based on the classification of human activities at work into physical work and mental work. Even though both categories cannot be separated, work dominated by physical activity and work dominated by mental activity can be distinguished. This physical and mental activity creates a physical workload and a mental workload. In general, the workload in a bank is a mental workload, considering that banking activities involve more mental activities. Therefore, mental workload is a common source of stress faced by bank frontliners.

In addition to sources of stress, the ability to deal with sources of stress also determines the magnitude of job stress experienced by the frontliners. This ability is associated with personal characteristics that can affect job stress, namely hardiness, self-efficacy, and negative affect. Of these three personal characteristics, hardiness is the characteristic that has the most influence on job

stress, as reported by Subramanian & Vinothkumar (2009). Hardiness is a personal characteristic with the main feature of being able to withstand stress characterized by commitment to work, confidence to control circumstances, and a positive outlook on challenging situations (Kobasa et al., in Rollinson, 2008).

Individuals with a low level of hardiness are more prone to experiencing stress than individuals with a higher level of hardiness (Kobasa et al., in Rollinson, 2008). McCalister et al. (2006) and Judkins dan Rind (2005) also found that a high hardiness level is a significant factor in low job stress. Thus, it can be concluded that the hardiness of the frontliners can help them survive in stressful conditions so that they can minimize the job stress they experience.

The present study aimed to examine the role of hardiness as the moderator in the effect of mental

METHODS

The sample in this study were frontliners at the three branch offices of Mandiri Bank in the Pematang Siantar area, with a total of 53 people with the following characteristics: (1) Employees who work as frontliners, such as tellers and customer service at Mandiri Bank in the Pematang Siantar area; (2) Has worked as frontliners at Mandiri Bank in the Pematang Siantar area for one year. The non-random sampling technique was used, a sampling method that did not provide equal opportunities for each member of the population to be selected as a sample.

workload on job stress in bank frontliners with the following hypothesis:

1. Hardiness had a significant influence on the strength of the effect of mental workload on job stress in frontline bank employees in the Pematang Siantar area.
2. In regards to the effect of mental workload on job stress:
 - a. Major: Mental workload had a significant effect on the job stress of the bank frontliners.
 - b. Minor: There was a difference in the effect of the three dimensions of mental workload on the job stress of the bank frontliners.
3. In regards to the effect of hardiness on job stress:
 - a. Major: Hardiness had a significant effect on the job stress of the bank frontliners.
 - b. Minor: There was a difference in the effect of the three dimensions of mental workload on the job stress of the bank frontliners.

The instruments in this study used self-report measures, including demographic information and three scales consisting of (1) job stress scale, (2) mental workload scale, and (3) hardiness scale. The data analysis method in this study was the Moderated Regression Analysis (MRA), simple regression, and multiple regression analysis methods. The research data were also tested with assumptions consisting of (1) the Normality test, (2) the Linearity test, (3) the Multicollinearity test, (4) the Heteroscedasticity test, and (5) the Autocorrelation test.

RESULTS AND DISCUSSION

Table 1. Categorization of Mental Workload

No	Score	Category	Level	Frequency	%
1	$x \geq 33$	High	Severe	31	58.49%
2	$21 < x < 33$	Moderate	Moderate	18	33.91%
3	$x \leq 21$	Low	Mild	4	7.54%
Total				53	100%

Based on Table 1, around 31 subjects (58.49%) perceived severe mental workload. Furthermore, 18 subjects (33.91%) perceived a moderate mental workload, while 7.54% (n = 4) frontliners perceived a mild mental workload.

Table 2. Categorization of Job Stress

No	Score	Category	Level	Frequency	%
1	$x \geq 47.67$	High	Severe	30	56.60%
2	$30.33 < x < 47.67$	Moderate	Moderate	19	35.84%
3	$x \leq 30.33$	Low	Mild	4	7.54%
Total				53	100%

As shown in Table 2, more than half of the frontliners at the bank experienced severe job stress (56.60%). Meanwhile, around 19 subjects (35.84%) experienced moderate job stress, and 7.54% of subjects experienced mild job stress.

Table 3. Categorization of Hardiness Levels

No	Score	Category	Level	Frequency	%
1	$x \geq 33$	High	Severe	4	7.54%
2	$21 < x < 33$	Moderate	Moderate	9	16.98%
3	$x \leq 21$	Low	Mild	40	75.47%
Total				53	100%

Based on Table 3, it can be seen that most subjects had a low level of hardiness (75.47%). In addition, 16.98% (9 subjects) had a moderate level of hardiness, whereas 7.54% (4 people) subjects had a high level of hardiness

First Hypothesis (H_{a1})

Table 4. Results of Regression Analysis Between Mental Workload and Hardiness Towards Job Stress

Model	F-Test	B	t	R	R ²	Sig.	Conclusion
MW*JS	133.104	1.461	3.688	.944	.891	.000	Significant
HR*JS	69.935	-.845	1.790	.903	.817	.000	Significant
HR X MW *JS	139.589	-.098	-1.819	.919	.845	.042	Significant

Note:

MW = Mental Workload

HR = Hardiness

JS = Job Stress

The test results of the first hypothesis (H_{a1}) in Table 4 showed that both mental workload and hardiness had a significant effect on job stress by 84.5%. Hardiness has also been shown to reduce the role of mental workload on job stress. Thus, the first alternative hypothesis was accepted.

This finding aligns with previous studies regarding the relationship between mental workload and hardiness toward job stress. Kuratsune et al. (2012) reported that excessive and prolonged mental workload can cause fatigue, which is one of the

effects of job stress. Excessive mental workload can cause job stress (González-Muñoz & Gutiérrez-Martínez, 2007; Hancock & Meshkati, 1988; Subramanian et al., 2013). Meanwhile, Rollinson (2008) argues that hardiness is a personality characteristic whose presence can reduce the influence of stressors on job stress. Individuals with low hardiness are more prone to stress than individuals with higher hardiness (Kobasa et al., in Rollinson, 2008). Conversely, low hardiness is highly correlated with stress (Riggio, 1990)

Second Hypothesis (H_{a2})

Table 5. Results of Regression Analysis Between Burden of Mental Effort, Time Load, and Psychological Pressure Towards Job Stress

Model	F-Test	B	R	R ²	t	Sig.	Conclusion
MW*JS	133.104	1.461	.944	.891	3.688	.000	Significant
TL	-	2.937	.780	.529	11.203	.000	Significant
MEL	-	2.524	.669	.521	11.029	.042	Significant
PP	-	.643	.426	.100	2.121	.039	Significant

Note:

MW = Mental Workload

MEL = Mental Effort Load

TL = Time Load

PP = Psychological Pressure

JS = Job Stress

a. Major

The test results of the second major hypothesis (H_{a2}) proved that mental workload had a significant effect on job stress by 89.1%. This finding is evident from the high mental workload and high job stress of frontline bank employees in the Pematang Siantar area. Around 58.49% of the frontline bank employees in the Pematang Siantar area had a high mental workload, whereas 56.60% of the frontliners experienced high job stress. Therefore, the second major alternative hypothesis was accepted.

These findings are consistent with a study conducted by (Neill, 2011), which reported that workload demands could cause mental overload and trigger stress at work. Marizki et al. (2014) also found that mental workload might cause disruption of employees' sleep rhythms and is vulnerable to the effects of job stress. Mubarak (2007) also stated that mental workload results in employees experiencing one of the effects of job stress, such as decreased motivation.

This condition also occurs at Mandiri Bank in the Pematang Siantar area due to the company's

conditions that demand high professionalism from the frontliners. This situation at Mandiri Bank in the Pematang Siantar area results in a highly competitive work culture, many rules and codes of ethics that must be followed, larger targets to be achieved, a strict performance appraisal system, and additional duties as marketers for banking products to the customers. Moreover, the high demands and complexity of the tasks are also considered by the frontliners to have exceeded their capacity. This is in accordance with several studies which reported that when employees perceive that the mental workload exceeds their capacity, employees will tend to feel stressed (Carrère et al., 1991; Harris & Arendt, 1998; Rahim, 1983).

b. Minor

The test results of the second minor hypothesis (H_{a2}) found that mental effort, time, and psychological pressure loads had a different magnitude on job stress. Time load was proven to affect job stress by 52.9%, whereas mental effort load influenced job stress by 52.1%. Meanwhile,

psychological pressure had the lowest effect on job stress, which was only 10%. Nevertheless, there was a difference in the effect of the three dimensions of mental workload on job stress. It can be concluded that the second minor alternative hypothesis was also accepted.

González-Muñoz & Gutiérrez-Martínez (2007) state that long and intense working hours tend to increase employees' job stress. In addition, Subramanian et al. (2013) also found that the time load at work is a significant source of job stress. This is because frontline bank employees in the Pematang Siantar area had to complete a large number of demanding tasks in a short time regularly. Moreover, the complexity of the tasks and the lack of skills in marketing the bank products might also drain the frontliners' energy and mind because it requires a considerable amount of mental effort.

Overall, mental effort, time, and psychological pressure loads can increase job stress among the frontline bank employees in the Pematang Siantar area. The heavier the time load, the mental effort, and the psychological pressure experienced by the frontliners, the heavier the job stress will be. Conversely, lower time load, mental effort, and psychological pressure will also decrease the frontliners' job stress.

Third Hypothesis (H_{a3})

a. Major

The test results showed that hardiness had a significant effect on job stress by 81.7%. This finding is evident from the low hardiness and high job stress of the frontline bank employees in the Pematang Siantar area. Around 75.47% of the frontline bank employees in the Pematang Siantar area had low hardiness, whereas 56.60% of the frontliners experienced high job stress. Therefore, the third major alternative hypothesis was accepted. The study

result is in line with the theory by Kobasa (in Rollinson, 2008) that hardiness is an important personality type related to resistance to stress.

In addition, research conducted by Judkins & Rind (2005) reported that a high level of hardiness can reduce job stress while a low level of hardiness tends to increase job stress. In line with that, da Silva et al. (2014) found that individuals with a high hardiness tend to have milder job stress. Moreover, McCalister et al. (2006) also reported that hardiness is one of the variables capable of reducing job stress, increasing happiness and adjustment among employees. Lambert et al. (2003) also stated that increasing hardiness significantly helps individuals to cope with stress at work.

Basically, hardiness can be learned, which means that it is possible to increase the level of hardiness of individuals (Kobasa, in Rollinson, 2008). One way that is considered effective for increasing hardiness is through hardiness training (Judkins et al., 2006; Maddi et al., 1998). The study conducted by Judkins et al. (2006) found that hardiness training is effective in increasing hardiness and maintaining psychological well-being, thereby enabling individuals to function effectively at work, even in stressful situations.

b. Minor

The test results indicated that the three characteristics of hardiness had an effect on job stress. Commitment was proven to affect job stress by 48.2%, whereas control affected job stress by 37.1%. Meanwhile, the challenge had the lowest effect on job stress, which was 20.3%. This showed that the effect of all characteristics of hardiness on job stress was different, and commitment had the most significant effect on job stress. Therefore, the minor third alternative hypothesis was also accepted.

Table 6. Results of Regression Analysis Between Commitment, Control, and Challenge on Job Stress

Model	F-Test	B	R	R ²	t	Sig.	Conclusion
HR*JS	69.935	-.845	.904	.817	1.790	.000	Significant
CM	-	-4.440	-.619	.482	-7.722	.000	Significant
CT	-	-2.848	-.749	.371	-5.943	.000	Significant
CL	-	-1.119	-.654	.203	-3.520	.002	Significant

Note:

HR = Hardiness

CM = Commitment

CT = Control

CL = Challenges

JS = Job Stres

This finding is relevant to a study conducted by Sindik dan Adzija (2013), who found that the characteristics that contribute significantly to forming hardiness in individuals are control and commitment. Spurlock (2008) also reported that the characteristic of hardiness that is most correlated with job stress is commitment, followed by control and challenge.

Some of the reasons stated by Vinothkumar et al. (2013) that commitment and control can be the most influential characteristics in reducing job stress because commitment is highly correlated with mindfulness, which is a state of complete awareness and includes self-awareness and attention from individuals and is characterized as openness, acceptance (receptive), and does not involve judgment (non-judgment). When individuals apply mindfulness in their lives, they will use creativity, experience flexibility in thinking, and be able to improve memory (Subramanian et al., 2013). As a result, individuals will tend to have a highly optimistic outlook, experience more favorable conditions, and have more control over their lives so that they are not susceptible to job stress.

CONCLUSION

Based on the research results, the conclusions from the results of this study are:

1. Hardiness is proven to have an influence on the role of mental workload on job stress among bank frontliners; the bank frontliners have a low level of hardiness, so they experience high job stress when facing a severe mental workload.

2. The high level of job stress experienced by the frontliners was influenced by severe mental workload.

3. The three dimensions of mental workload, namely time load, mental effort load, and psychological pressure, had a significant effect on the job stress of frontliners. Time load and mental effort load had the most significant effect, followed by psychological stress.

4. Heavy job stress experienced by bank frontliners is proven to be affected by low hardiness.

5. The three characteristics of hardiness, namely commitment, control, and challenges, influenced the job stress of the bank frontliners. Commitment had the largest effect on job stress, compared to control and challenge.

REFERENCES

- Ajala, E. M. (2012). The influence of workplace environment on workers' welfare, performance and productivity. *The African Symposium*, 12(1), 141–149.
- Ayyappan, S., & SakthiVadivel, M. (2013). Financial Efficacy of Selected Public and Private Sector Banks in India. *International Journal of Finance & Banking Studies* (2147-4486), 2(2), 26–31. <https://doi.org/10.20525/ijfbs.v2i2.143>
- Azagba, S., & Sharaf, M. F. (2011). The effect of job stress on smoking and alcohol consumption. *Health Economics Review*, 1(1). <https://doi.org/10.1186/2191-1991-1-15>
- Carrère, S., Evans, G. W., Palsane, M. N., & Rivas, M. (1991). Job strain and occupational stress among urban public transit operators. *Journal of Occupational Psychology*, 64(4), 305–316. <https://doi.org/10.1111/j.2044-8325.1991.tb00562.x>
- Croucher, R., Stumbitz, B., Quinlan, M., & Vickers, I. (2013). Can better working conditions improve the performance of SMEs? An international literature review.
- da Silva, R. M., Goulart, C. T., Lopes, L. F. D., Serrano, P. M., Costa, A. L. S., & de Azevedo Guido, L. (2014). Hardy personality and burnout syndrome among nursing students in three Brazilian universities—an analytic study. *BMC Nursing*, 13(1). <https://doi.org/10.1186/1472-6955-13-9>
- Dowse, S., & Underwood, J. (2001). Work Life Balance of IT Managers: Finding Time for a Life.

- González-Muñoz, E. L., & Gutiérrez-Martínez, R. E. (2007). Contribution of mental workload to job stress in industrial workers. *Work* (Reading, Mass.), 28(4), 355–361.
- Greenberg, J., & Baron, R. A. (2003). *Behavior in Organization International Edition*. New Jersey: Prentice Hall.
- Hancock, P. A., & Meshkati, N. (1988). Human Mental Workload. In *Advances in Psychology* (pp. v–vi). Elsevier. [https://doi.org/10.1016/s0166-4115\(08\)62377-8](https://doi.org/10.1016/s0166-4115(08)62377-8)
- Harris, J. H., & Arendt, L. A. (1998). Stress reduction and the small business: Increasing employee and customer satisfaction. *SAM Advanced Management Journal*, 63(1), 27.
- Judkins, S., Reid, B., & Furlow, L. (2006). Hardiness Training Among Nurse Managers: Building a Healthy Workplace. *The Journal of Continuing Education in Nursing*, 37(5), 202–207. <https://doi.org/10.3928/00220124-20060901-03>
- Judkins, S., & Rind, R. (2005). Hardiness, Job Satisfaction, and Stress Among Home Health Nurses. *Home Health Care Management & Practice*, 17(2), 113–118. <https://doi.org/10.1177/1084822304270020>
- Kuratsune, D., Tajima, S., Koizumi, J., Yamaguti, K., Sasabe, T., Mizuno, K., Tanaka, M., Okawa, N., Mito, H., Tsubone, H., Watanabe, Y., Inoue, M., & Kuratsune, H. (2012). Changes in reaction time, coefficient of variance of reaction time, and autonomic nerve function in the mental fatigue state caused by long-term computerized Kraepelin test workload in healthy volunteers. *World Journal of Neuroscience*, 02(02), 113–118. <https://doi.org/10.4236/wjns.2012.22016>
- Lambert, V. A., Lambert, C. E., & Yamase, H. (2003). Psychological hardiness, workplace stress and related stress reduction strategies. *Nursing and Health Sciences*, 5(2), 181–184. <https://doi.org/10.1046/j.1442-2018.2003.00150.x>
- Maddi, S. R., Kahn, S., & Maddi, K. L. (1998). The effectiveness of hardiness training. *Consulting Psychology Journal: Practice and Research*, 50(2), 78–86. <https://doi.org/10.1037/1061-4087.50.2.78>
- Mahardiani, Y., & Pradhanawati, A. (2013). Pengaruh stres kerja dan lingkungan kerja fisik terhadap kinerja karyawan outsourcing pada pt. Bank Jateng cabang koordinator dan cabang pembantu wilayah kota semarang. *Jurnal Administrasi Bisnis*, 2(1).
- Marizki, I., Wahyuning, C. S., & Desrianty, A. (2014). Evaluasi beban kerja mental dan kualitas tidur operator call center menggunakan metode heart rate variability dan sleep quality index. *REKA INTEGRA*, 2(2).
- McCalister, K. T., Dolbier, C. L., Webster, J. A., Mallon, M. W., & Steinhardt, M. A. (2006). Hardiness and Support at Work as Predictors of Work Stress and Job Satisfaction. *American Journal of Health Promotion*, 20(3), 183–191. <https://doi.org/10.4278/0890-1171-20.3.183>
- Mubarok, A. S. (2007). Hubungan antara beban kerja mental (mental workload) dan kelelahan (fatigue) terhadap motivasi kerja sales promotion girl/male (spg/spm) pt. pasaraya toersajaya.
- Nakata, A. (2012). Psychosocial Job Stress and Immunity: A Systematic Review. In *Methods in Molecular Biology* (pp. 39–75). Humana Press. https://doi.org/10.1007/978-1-62703-071-7_3
- Neill, D. (2011). Nursing Workload and the Changing Health Care Environment: A Review of the Literature. *Administrative Issues Journal*, 1(2). <https://doi.org/10.5929/2011.1.2.11>
- Permaitiyas, E. (2012). Stres kerja dan strategi coping karyawan frontliner (teller) bank. University of Muhammadiyah Malang.
- Rafferty, A. E., & Griffin, M.

- A. (2006). Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology*, 91(5), 1154–1162. <https://doi.org/10.1037/0021-9010.91.5.1154>
- Rahim, M. A. (1983). Measurement of Organizational Conflict. *The Journal of General Psychology*, 109(2), 189–199. <https://doi.org/10.1080/00221309.1983.10736085>
- Rao, S., & Borkar, S. (2012). Development of scale for measurement of stress and performance status of public and private sector bank employees. *Indian Stream. Res. J*, 2(7), 1–7.
- Riggio, R. E. (1990). Introduction to industrial/organizational psychology.
- Rollinson, D. (2008). *Organisational behaviour and analysis: An integrated approach*. Pearson Education.
- Safaria, T. (2011). PERAN RELIGIOUS COPING SEBAGAI MODERATOR DARI JOB INSECURITY TERHADAP STRES KERJA PADA STAF AKADEMIK. *HUMANITAS: Indonesian Psychological Journal*, 8(2), 155. <https://doi.org/10.26555/humanitas.v8i2.462>
- Sindik, J., & Adzija, M. (2013). Hardiness and situation efficacy at elite basketball players. *Collegium Antropologicum*, 37(1), 65–74.
- Subramanian, S., Velayudhan, A., Vinothkumar, M., Wahyuni, W., Kusuma, K. A., Teasdale, J. D., Segal, Z. V., Williams, J. M. G., Thornton, L. J., McEntee, M. E., Ayyappan, S., SakthiVadivel, M., Weigl, M., Müller, A., Angerer, P., Hoffmann, F., & Cuqlock-Knopp, V. G. (2013). Workflow interruptions and mental workload in hospital pediatricians: an observational study. *Theory Into Practice*, 58(2), 250–257. <https://doi.org/10.1080/00405849509543688>
- Suciati, A. T. H., & Minarsih, M. M. (2015). Job insecurity and job stress effect of turnover intention on PT. Berkas Abadi Surya Cemerlang Semarang (HO). *Journal of Management*, 1(1).
- Tabassum, A., Rahman, T., & Jahan, K. (2011). Quality of work life among male and female employees of private commercial banks in Bangladesh. *International Journal of Economics and Management*, 5(1), 266–282.
- Vinothkumar, M., Vinu, V., & Anshya, R. (2013). Mindfulness, hardiness, perceived stress among engineering and BDS students. *Indian Journal of Positive Psychology*, 4(4), 514–517.