

Gender Role Stress and Individual Work Performance among Balinese Digital Economy Actors

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Abstract: The gender divide issue has been part of the development of digital technology among women worldwide, including in Indonesia, where access to and ability to use digital technology tends to be a challenge for women. The tendency for access and capability increase in the use of digital technology tends to be greater for men. This also has an impact on work performance, where it is known that gender role conflict can cause stress at work and affect work performance. There seems to be limited research that examines gender role stress in the context of Balinese people who are digital economy actors, especially regarding whether the stress related to gender roles is felt, the dimensions that stand out, and whether it has an impact on individual work performance. This research was conducted on 53 digital economy actors from Bali who were obtained by applying snowball sampling. Data was obtained using the Feminine Gender Role Stress (FGRS) scale for female respondents and Masculine Gender Role Stress (MGRS) for male respondents. Work performance is measured using the Individual Work Performance Questionnaire (IWPQ). Data analysis uses the regression method with the Curve Estimation approach, where scatter plot evaluations will be carried out for each group to determine which pattern is suitable for each group. The research results show that gender role stress influences individual work performance, where the higher the stress, the lower the work performance. The dimensions of gender role stress that stand out in women are dimensions related to the assessment of appearance and motherhood, where these two dimensions intrinsically do not have components related to carrying out work outside the household context. Meanwhile, for men, this is a dimension of assessing intellectual ability.

Keywords: gender role stress, work performance, digital workers, Balinese culture

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Introduction

The Industrial Revolution 4.0 has been accompanied by technological advancements that drive business actors, including Micro, Small, and Medium Enterprises (MSMEs), to "go digital." MSMEs play a vital role in the Indonesian economy, contributing 61.12% to the national GDP in 2019 and providing employment for approximately 97% of the total workforce (Badan Pusat Statistik, 2020).

Bali is one of Indonesia's provinces that continues to preserve its cultural values through the existence of *desa adat* (traditional villages). These traditional villages possess rich and unique cultural values, including distinct traditions, customs, arts, and spiritual beliefs (Sara et al., 2022). Data from the Bali Office of Cooperatives and MSMEs indicate that the number of MSMEs in Bali reached 440,609 units as of May 2022, an increase from 412,265 units in 2021 (Badan Pusat Statistik, 2020). This represents an increase of 28,344 units or 6.4% from the previous year (Data Keragaan UMKM Provinsi Bali, n.d.). Utilizing digital platforms in business operations is a primary strategy for these MSMEs to remain resilient (Fuadi et al., 2021).

Within the context of Balinese culture and its patriarchal systems, issues regarding access to technology and gender roles are particularly salient. Research on Balinese female entrepreneurs suggests that economic roles and ownership are still predominantly weighted toward men (Setiyarti et al., 2018). Balinese career women face uncertainty in the industrial world as they must balance gender roles across family, career, and traditional customs (Komalasari, 2017; Saskara et al., 2012; Utari, 2012). The "gender divide" also characterizes digital technological developments globally and in Indonesia, where digital literacy and access remain challenging for women. There is a tendency for men to have greater access and space for skill enhancement in digital technology (Acilar & Sæbø, 2023; Faugoo & Onaga, 2022; Marini et al., 2020; Nurcahyani & Isbah, 2020; Wahyuningtyas & Adi, 2016). This ultimately impacts work performance. It is established that gender role conflict can induce occupational stress and affect overall performance (Akbar, 2017; Aqmarina et al., 2021; Fathonah et al., 2020).

Existing research has rarely examined gender role stress within the context of Balinese digital economy actors, specifically regarding their work performance. While literature suggests that gender roles impact economic equality for women, further confirmation is needed among digital economy practitioners. Previous studies indicate that role conflict induces stress, but it is necessary to investigate how gender role stress specifically impacts work performance within the digital business sector. Therefore, this study focuses on Balinese individuals engaged in digital MSMEs.

Method

This study employs a quantitative correlational design. The dependent variable is individual work performance, while the independent variables are masculine and feminine gender role stress. Individual work performance refers to individual actions taken to achieve organizational goals, increase productivity, and enhance achievement (Widyastuti et al., 2018). Gender role stress is defined as a state where individuals feel pressure when facing stressors related to requirements to behave according to masculine (for men) or feminine (for women) gender roles (Gillespie & Eisler, 1992; Kazmierczak, 2010).

Data were collected using two scales: an adapted individual performance scale and an adapted gender role stress scale. Gender role stress was measured using the Feminine Gender Role Stress (FGRS) scale for female respondents and the Masculine Gender Role Stress (MGRS) scale for male respondents. Both scales demonstrate high internal consistency, with reliability coefficients of 0.90 for the MGRS and 0.82 for the FGRS (Gillespie & Eisler, 1992; Kazmierczak, 2010). Individual work performance was measured using the Individual Work Performance Questionnaire (IWPQ), which has a coefficient value above 0.8 (Widyastuti et al., 2018).

The respondents were 53 Balinese digital workers with at least one year of experience in digital fields in Bali. Participants were recruited using snowball sampling. Respondents work in diverse fields, including content creation, culinary, tourism, health, and entrepreneurship, all of whom conduct business digitally (marketing, production, and/or services).

Data analysis was performed using regression with a Curve Estimation approach, evaluating scatter plots for each group to determine the most appropriate model. Two possible assumptions for the data distribution were linear and quadratic patterns. A model was considered significant if the p -value (Sig.) was less than 0.05.

To address potential violations of classical assumptions (such as non-normality of residuals), this study utilized bootstrap pairs regression. Normal distribution of residuals is based on the Central Limit Theorem, which states that the distribution of independent and identically distributed variables tends toward normality as the sample size increases (Gujarati & Porter, 2010). If normality is not met, the parameter estimator may not be the Best Linear Unbiased Estimator (BLUE). Furthermore, issues like multicollinearity and heteroskedasticity can lead to inefficient estimators. The bootstrap method, introduced by Efron in 1979, is a computer-based simulation technique for estimating standard errors without assuming a specific data distribution. It is particularly effective for small sample sizes (Fitri, 2016).

Result and Discussion

The 53 respondents consisted of 28 men and 25 women. Characteristics evaluated included length of service, education, and income. Most respondents (18 men and 16 women) had worked for 1 to 3 years. Regarding education, the majority of male respondents held a Bachelor's degree (12 people), followed by Master's degrees (8 people). Among female respondents, the majority held a Bachelor's degree (11 people), followed by Diplomas (7 people). Most male respondents (15 people) earned between 4 and 10 million IDR, while 9 female respondents fell into the same bracket. Notably, one female respondent reported an income of >30 million IDR.

Table 1. Respondent Characteristics

Respondent Characteristics		Male		Female	
		Number	Percentage	Number	Percentage
1.	Length of Work				
	< 1 year	2	7.1	1	4.0
	1-3 years	18	64.3	16	64.0
	>3-5 years	7	25.0	7	28.0
	> 5 years	1	3.6	1	4.0
	Total	28	100.0	25	100.0
2.	Education				
	High School	5	17.9	2	8.0
	Diploma	3	10.7	7	28.0
	Undergraduate	12	42.9	11	44.0
	Master	8	28.6	5	20.0
	Total	28	100.0	25	100.0
3.	Monthly Income				
	< 1.000.000	0	0.0	1	4.0
	1.000.000 to 2.500.000	4	14.3	6	24.0
	2.500.001 to 4.000.000	7	25.0	5	20.0
	4.000.000 to 10.000.000	15	53.6	9	36.0
	10.000.001 to 20.000.000	2	7.1	3	12.0
	> 30.000.000	0	0.0	1	4.0
	Total	28	100.0	25	100.0

The participants in this study consisted of 53 individuals, categorized into male and female groups, comprising 28 males and 25 females. Three primary characteristic variables were evaluated: length of service, education level, and monthly income. Regarding the length of service, the majority of both male and female respondents had been working for 1-3 years, totaling 18 males and 16 females.

Based on educational characteristics, the majority of male respondents held a Bachelor's degree ($n = 12$), followed by Master's degrees ($n = 8$). Among female respondents, the highest frequency was also found at the Bachelor's degree level ($n = 11$), followed by Diploma holders ($n = 7$).

In terms of income, the largest segment of male respondents ($n = 15$) earned between 4 million and 10 million IDR, while 9 female respondents fell within the same bracket. Interestingly, one female respondent reported a significantly higher income of > 30 million IDR.

The performance evaluation based on gender role stress was conducted separately for each gender. The initial step involved observing the distribution patterns between these two variables to determine their underlying structure.

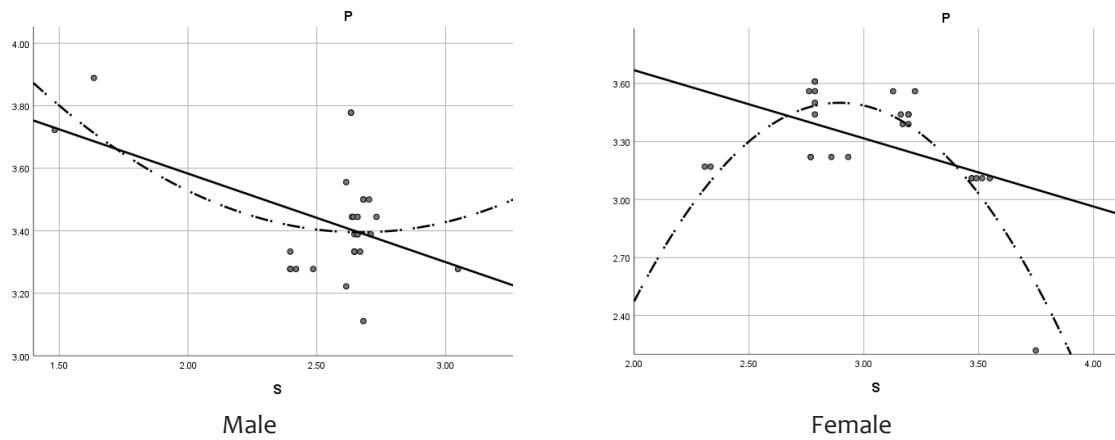


Figure 1. Data Distribution Patterns by Gender

Note:

- • • • • : observations
- : linear pattern
- - - - - : quadratic pattern

Based on the patterns observed in both figures, the linear regression approach indicates a negative trend, suggesting that higher levels of stress correlate with lower individual performance. However, the linear model does not sufficiently represent the overall data distribution. Consequently, a quadratic curve approach was applied to better accommodate the data. Based on the resulting curves, it is evident that the quadratic pattern more accurately represents the majority of the data points.

The insight derived from these two patterns is that for female respondents, there is a specific threshold where a certain level of stress is necessary to enhance performance; however, once this tipping point is exceeded, stress begins to decline their performance. In contrast, male respondents tend to follow a linear pattern, where lower stress consistently correlates with higher performance levels. This observation is further supported by the R-Square results for both respondent groups, detailed as follows:

Table 2. R-squared test

Model	Male		Female	
	R Square	Sig.	R Square	Sig.
Linear	0.234	0.009	0.206	0.023
Quadratic	0.284	0.015	0.711	0.000

The R-Square values for the male group show no substantial difference between the linear model (0.234) and the quadratic model (0.284). In contrast, for the female group, the R-Square value for the quadratic model is significantly higher than that of the linear model. It can be concluded that the quadratic model provides a much stronger fit for the female respondents compared to the males.

Table 3. Contribution of Gender Role Stress Dimensions

Male			Female		
Dimension	t	Sig.	Dimension	t	Sig.
PH	0.799	0.433	NES	-0.613	0.547
EI	0.427	0.673	FPH	-3.466	0.003
SUB	-1.614	0.121	V	1.091	0.289
II	-2.115	0.046	AS	1.160	0.261
PF	-0.522	0.607	NURT	-2.234	0.038

Based on the bootstrap regression analysis, the significant contribution of each dimension was determined for each gender. For male respondents, the "Being Intellectually Inferior" dimension was found to be a significant predictor of performance ($p = 0.046 < 0.05$). Among female respondents, the dimensions of "Feeling Physically Unattractive" (FPH) ($p = 0.003 < 0.05$) and "Not being Nurturant" (NURT) ($p = 0.038 < 0.05$) were the factors that significantly influenced work performance.

This research stems from an effort to confirm whether gender role stress affects the work performance of digital economy actors in Bali, particularly within the context of gender-based imbalances in digital technology access. The analysis confirms that gender role stress indeed influences work performance. A key finding is that stress can drive performance up to a certain point, after which a negative relationship emerges. Existing literature explains that under certain conditions, stress can motivate individuals to perform; however, when experienced in specific forms or intensities, it adversely impacts work performance. This is also linked to individual resilience (An et al., 2020; Paais et al., 2018; Syafrizaldi, 2020; Wibowo et al., 2021).

Regarding the contribution of specific stress dimensions, the most influential factor for male respondents was "Being Intellectually Inferior." This dimension implies that men feel pressured when receiving performance evaluations that suggest their mental capabilities are perceived as lower than others. This is inseparable from social demands regarding masculine roles, where men are expected to appear strong and invincible (Eisler, 1991; Swartout et al., 2015). Conversely, for women, stress was more prominent in dimensions related to physical unattractiveness and being perceived as non-nurturing. It is noteworthy that the stress experienced by this group is oriented toward appearance and caretaking traits, even within the context of professional performance. This indicates a perceived demand for women to maintain their appearance and behave in a gentle or motherly manner, consistent with traditional female stereotypes (Setiyarti et al., 2018).

The prominent dimensions among female respondents indicate that Balinese women still feel pressure to align their appearance and behavior with gender stereotypes. Meanwhile, for men, the pressure centers on the evaluation of their cognitive abilities. This suggests that the respondent group still holds gender role assumptions that are quite typical of traditional stereotypes (Nurcahyani & Isbah, 2020; Setiyarti et al., 2018). A unique finding is that the SUB dimension, stress related to being outperformed by women in traditionally male activities, was not prominent among men. This indicates that gender competition in stereotypical activities is not a major source of stress for the Balinese men in this study.

Reflecting on these dynamics, efforts toward gender equality for women in the digital economy remain highly relevant. Women in this study experience stress from aspects that are intrinsically unrelated to their direct professional tasks, such as physical appearance and the ability to fulfill nurturing roles. This may align with studies on female digital workers or entrepreneurs who still feel the burden of domestic

role expectations (Adnyana & Martini, 2021; Setiyarti et al., 2018), even though male respondents did not show significant concern regarding women excelling in traditionally male tasks.

While these unique dynamics confirm several literatures regarding gender roles in the workplace, the analysis must be viewed through the lens of its methodology, which utilizes non-normal data, making broad generalization difficult. These results require further exploration to understand the specific cultural contextualization of Bali regarding perceived gender role stress and the specific nature of digital work tasks.

Conclusion

The results of this study show that gender role stress significantly influences the individual work performance of digital economy actors. Interestingly, stress has a positive impact on performance up to a certain threshold, after which performance declines, a pattern more prominent in women than in men. Both genders demonstrate self-identification with their respective gender roles. However, among men, stress from competing with women in traditionally masculine activities was not prominent, suggesting lower assumptions regarding gender competition in this sample. Further exploration is needed to understand the underlying gender role assumptions held by men in this group. Female respondents, on the other hand, exhibited anxiety regarding evaluations of their appearance and nurturing behaviors.

These unique findings warrant deeper investigation, particularly given the specific stress dimensions identified for each gender. Nonetheless, it must be noted that this research was conducted using methods that account for sample limitations; therefore, wide generalization is not recommended. It is suggested that future research re-examine the influence of gender role stress on performance using instruments with stronger cultural contextualization.

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References

- Acilar, A., & Sæbø, Ø. (2023). Towards understanding the gender digital divide: a systematic literature review. *Global Knowledge, Memory and Communication*, 72(3), 233–249. <https://doi.org/10.1108/GKMC-09-2021-0147/FULL/XML>
- Adnyana, I. G. S., & Martini, I. A. O. (2021). Mengulik pentingnya teknologi digital pada perempuan Bali di era revolusi industri 4.0. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 5(3), 1379–1396. <https://doi.org/10.31955/MEA.V5I3.1470>
- Akbar, D. A. (2017). Konflik peran ganda karyawan wanita dan stres kerja. *An Nisa'a*, 12(1), 33–48. <http://jurnal.radenfatah.ac.id/index.php/annisa/article/view/1464>
- An, J., Liu, Y., Sun, Y., & Liu, C. (2020). Impact of work-family conflict, job stress, and job satisfaction on seafarer performance. *International Journal of Environmental Research and Public Health*, 17(7). <https://doi.org/10.3390/IJERPH17072191>
- Aqmarina, M. N., Rinda, R. T., & Subakti, J. (2021). Evaluasi kinerja karyawan wanita melalui konflik peran ganda dan gender. *Al Tijarah*, 6(3), 108–114. <https://doi.org/10.2111/TIJARAH.V6I3.5659>
- Badan Pusat Statistik. (2020). *Statistik UMKM Indonesia 2020*. <https://www.bps.go.id/publication/2020/12/30/5a7d5a6f733d4769b37bf90b/statistik-ukm-indonesia-2020.html%20>
- Data Keragaan UMKM Provinsi Bali. (n.d.). Retrieved April 11, 2023, from <https://diskopukm.baliprov.go.id/data-dan-informasi/data-umkm/>

- Fathonah, D., Syahrani, & Andriyansah. (2020). Pengaruh peran gender dan stres kerja terhadap kinerja perawat di rumah sakit umum daerah Tarakan provinsi Kalimantan Utara. *Coopetition: Jurnal Ilmiah Manajemen*, XI(2), 117–124. <https://media.neliti.com/media/publications/325686-pengaruh-peran-gender-dan-stres-kerja-te-d4faffd2.pdf>
- Faugoo, D., & Onaga, A. I. (2022). Establishing a resilient, economically prosperous and inclusive world by overcoming the gender digital divide in the new normal. *Responsible Management of Shifts in Work Modes – Values for a Post Pandemic Future*, Volume 1, 115–129. <https://doi.org/10.1108/978-1-80262-719-020221009/FULL/HTML>
- Fitri, D. A. (2016). Estimasi parameter model regresi linier berganda dengan teknik bootstrap. *Jurnal Matematika UNAND*, 3(3), 41–49. <http://jmua.fmipa.unand.ac.id/index.php/jmua/article/view-File/139/136>
- Fuadi, D. S., Sadikin Akhyadi, A., Saripah, I., Pendidikan Indonesia, U., Edu, D., & Edu, A. A. (2021). Systematic review: strategi pemberdayaan pelaku UMKM menuju ekonomi digital melalui aksi sosial. *Diklus: Jurnal Pendidikan Luar Sekolah*, 5(1), 1–13. <https://doi.org/10.21831/DIKLUS.V5I1.37122>
- Gillespie, B. L., & Eisler, R. M. (1992). Development of the feminine gender role stress scale. *Behavior Modification*, 16(3), 426–438. <https://doi.org/10.1177/01454455920163008>
- Gujarati, D., & Porter, D. C. (2010). *Dasar-Dasar Ekonometrika*. Salemba Empat.
- Kazmierczak, M. (2010). The feminine and masculine gender role stress - conclusions from Polish studies. *Polish Psychological Bulletin*, 41(1), 20–30. <https://doi.org/10.2478/S10059-010-0003-5>
- Komalasari, Y. (2017). Nilai tambah wanita karier Bali sebagai sosok pelestari budaya. *Prosiding Seminar Nasional AIMI*, 199–206. https://repository.unja.ac.id/3829/28/199_206_aimi.pdf
- Marini, S., Hanum, F., & Sulistiyo, A. (2020). Digital literacy: empowering Indonesian women in overcoming digital divide. <https://doi.org/10.2991/ASSEHR.K.200130.029>
- Nurchayani, A., & Isbah, M. F. (2020). Perempuan dan ekonomi digital: peluang kewirausahaan baru dan negosiasi peran berbasis gender. *PALASTREN: Jurnal Studi Gender*, 13(1), 27–58. <https://doi.org/10.21043/PALASTREN.V13I1.6382>
- Paais, M., Kristen, U., & Maluku, I. (2018). Effect of work stress, organization culture and job satisfaction toward employee performance in Bank Maluku. *Academy of Strategic Management Journal*, 17(5), 1939–6104.
- R. M. Eisler, J. A. B. (1991). Masculine gender role stress: Implications for the assessment of men. *Clinical Psychology Review*, 11, 45–60.
- Sara, I. M., Setini, M., & Tantra, I. G. L. P. (2022). Sinergi inovasi, modal budaya, dan partisipasi masyarakat dalam menciptakan kesejahteraan UMKM. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 6(1), 59–77. <https://doi.org/10.24034/J25485024.Y2022.V6.I1.5079>
- Saskara, I. A. N., Pudjihardjo, Maskie, G., & Suman, A. (2012). Tinjauan perspektif ekonomi dan nonekonomi perempuan Bali yang bekerja di sektor publik: studi konflik peran. *JAM: Jurnal Aplikasi Manajemen*, 10(3), 542–552. <https://jurnaljam.ub.ac.id/index.php/jam/article/view/446/485>
- Setiyarti, T., Ayu, I., & Wijayanthi, T. (2018). Peran gender perempuan entrepreneur: studi kasus pada keluarga di Bali. *Seminar Ilmiah Nasional Teknologi, Sains, Dan Sosial Humaniora (SINTESA)*, 1(0). <https://jurnal.undhirabali.ac.id/index.php/sintesa/article/view/531>
- Swartout, K. M., Parrott, D. J., Cohn, A. M., Hagman, B. T., & Gallagher, K. E. (2015). Development of the Abbreviated Masculine Gender Role Stress Scale. *Psychological Assessment*, 27(2), 489. <https://doi.org/10.1037/A0038443>
- Syafrizaldi, S. (2020). Employee work stress based on gender differences during the COVID-19 Pandemic. *INSPIRA: Indonesian Journal of Psychological Research*, 1(2), 30–37. <https://doi.org/10.32505/INSPIRA.V1I2.2835>
- Utari, N. K. S. (2012). Mengikis ketidakadilan gender dalam adat Bali. *Jurnal Studi Gender Srikandi*. <https://ojs.unud.ac.id/index.php/srikandi/article/view/2893>

- Wahyuningtyas, N., & Adi, K. R. (2016). Digital divide perempuan Indonesia. *Sejarah Dan Budaya : Jurnal Sejarah, Budaya, Dan Pengajarannya*, 10(1), 80–88. <https://doi.org/10.17977/UM020V10I12016Po80>
- Wibowo, A. D., Tamsah, H., Farida, U., Rasyid, I., Rusli, M., Yusriadi, Y., & Zulfiqar Bin Tahir, S. (2021). The influence of work stress and workload on employee performance through the work environment at Samsat Makassar city. *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management*, 6276–6282. <http://www.ieomsociety.org/singapore2021/papers/1058.pdf>
- Widyastuti, T., Hidayat, R., Widyastuti, T., & Hidayat, R. (2018). Adaptation of Individual Work Performance Questionnaire (IWPQ) into Bahasa Indonesia. *Consortia Academia*, 7(2). <https://doi.org/10.5861/IJRSP.2018.3020>