

# Financial Planning Challenges in the Gig Economy: An Exploratory Factor Analysis

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**Abstract:** *This study examines the specific financial planning challenges faced by independent contractors and freelancers in the rapidly growing gig economy. While gig work offers compelling advantages such as flexibility and autonomy, this research aims to analyze how the shift from traditional employment models impacts the ability of Davao City-based freelancers to achieve long-term financial security. This study uses a descriptive exploratory approach using Exploratory Factor Analysis through Principal Component Analysis (EFA-PCA). This study identifies financial knowledge, financial security, financial stability, financial behavior and insurance awareness as primary challenges towards financial planning of freelancers. Likewise, this research shows that despite the efforts exerted in budgeting and efficient financial management, freelancers and gig economy workers are vulnerable to economic shocks. The study concludes that current financial practices and social security systems are insufficient for this emerging workforce. It recommends systemic reforms, including the development of inclusive financial products tailored for irregular income, government-supported portable benefits, and targeted financial literacy programs to ensure the sustained well-being and stability of freelancers in Davao City.*

**Keywords:** *Exploratory Factor Analysis, Freelancers, Financial Challenges, and Gig Economy*

## I. INTRODUCTION

In the 21<sup>st</sup> century, gig economy gradually gained increasing recognition and acceptance among workers given its structured and more accessible way of providing employment opportunities particularly through online platforms where many workers can utilize online platforms to market their services to clients abroad (Joshi, Jain, and Gupta, 2024; Roy and Shrivastava, 2020). Consequently, workers from this economy, often called as freelancers and independent contractors, can look for works and projects online through digital platforms and media thereby giving them flexible working schedules as well as the ability to pursue several clients and projects at once which enables them to earn significant income thus helping them achieve financial security and independence (Shakil, 2024; Ardho & Sudrajad, 2023).

Despite the growing attractiveness of freelancing and contractual-based job arrangements, the volatility in employment opportunities among freelancers and contract-based workers posed threats to their job permanence and job security (Ahmad, 2020). For example, there are times when freelancers were unable to find any job opportunities due to difficulty in looking for any available clients (Ahmad, 2020; Alvarez-Dela Vega, Cecchinato, & Rooksby, 2021). Consequently, this affects their main source of income making them financially unstable hence hindering them in achieving financial stability (Ahmad, 2020). With this, financial planning must be included as part of their priority for them to be prepared for any of these eventualities (Yeo, Lim & Yui, 2024). However, challenges in financial planning among these types of individuals persist. Nevertheless, despite the presence of rigorous discussions about the financial planning among different groups, empirical analysis about this discipline on the lens of the freelancers and persons engaged in contractual-based job arrangements were limited and scant thus resulting to empirical and population gaps (Miles, 2017).

Financial planning is a process that requires setting goals and analyzing approaches to achieving them. The financial process includes analyzing and understanding current financial conditions, identifying future needs, and managing those needs through investing, budgeting, risk management, retirement planning, and taxes (Ang, 2024). The process of doing financial planning was influenced by multiple factors. Examples of these factors are instability of income and market volatility, lack of financial literacy, financial motivation, and difficulty in balancing their financial objectives (Ahmad, 2020; De la Vega, Cecchinato, & Rooksby, 2021; Ukodei, 2024).

Given the behavioral aspect of this examination, two theories have been influential in this study. That is, the theory of planned behavior and theory of Personal Financial Planning. The theory of Planned Behavior (TBP) argued that attitude toward activity, subjective norms, and perceived behavioral control are influential in one's intention to perform a specific behavior, in this case the intention to do financial planning (Ajzen, 1994; Ajzen, 2020; Ajzen & Schmidt, 2020; Hapsari, 2021; La Barbera & Ajzen, 2021). On the other hand, the theory of Personal Financial Planning emphasized that individuals could achieve financial planning taking into consideration the ability to manage risks which highlighted the different challenges towards performing financial planning such as market instability, achieving consistency, imbalance financial objectives and long term financial discipline (Altfest, 2004; Shih, Chen, and Wang, 2022; Polinar, Cabatingan, and Delantar, 2022; Bohora, 2023; Jumady et. al., 2024).

As the gig economy continues to gain traction and recognition, the number of freelancers and contract-based experienced unprecedented growth. Hence, exploring the challenges in financial planning of freelancers and contract-based workers cements the significance of the objective of this study. Doing so would unravel significant information that will help in understanding the challenges in performing financial planning hence giving the freelancers, policymakers, financial advisors, and the academe research-based initiatives, programs, projects, and activities.

### **II. REVIEW OF RELATED LITERATURE**

The exploratory nature of this paper warrants the necessity of reviewing relevant, applicable, and related literatures. That is, these literatures were the bases for creating multiple variables which were subjected to the analysis using the Exploratory Factor Analysis through Principal Component Analysis.

Financial planning is an activity of creating a roadmap that would provide a clear understanding on possible financial trade-offs to properly and appropriately manage your financial resources throughout your life to achieve financial freedom and independence (Tjuanakis-Cox, 2026). Doing financial planning is significant for every individual to control his or her spending, provide security from possible crises, free from worry, achieve sustainable lifestyle, freedom from debt, and realizing of personal goals (Manning, 2026; Tarver, 2026). Given the intricacies of financial planning, experts are usually recommending to consult professionals to properly outline their financial plans depending on their financial objectives and goals (Manning, 2026). Further, these intricacies along with other challenges and factors influenced the individual ability to perform financial planning (Innocenti, Clark, and McGill, 2023; Ukodei, 2024). Examples of these challenges are financial knowledge, financial security, insurance awareness, financial stability, and financial behavior.

Financial knowledge significantly influenced the individual's ability to perform financial management and planning i.e., individuals with sufficient financial skills and knowledge has the ability to manage their financial resources well particularly in the area of establishing appropriate decisions on their spending and money management (Novianti & Ariani, 2023). Moreover, financial knowledge gives people a strong background on choosing the correct financial decisions and can clearly establish clear map on their current financial conditions (Consumer Financial Protection Bureau, 2024). Finally, financial knowledge was considered as influential in shaping one's financial well-being as it gives an individual ability to process available financial information resulting to correct financial decisions (Merter & Balcioğlu, 2025). In the case of gig workers, financial knowledge is considered as a significant barrier towards financial planning given their limited exposure to financial education and financial literacy tools (Sopan, 2023). Moreover, the nature of gig economy where most of its workers were excluded from formal employment contract and traditional corporate framework resulting to limited financial knowledge as they have limited access to formal training and education particularly in the areas of financial and money management (Mallick & Das, 2025).

Financial Security refers to a situation where an individual has the stable source of income, continuous sustenance of one's needs and wants, and secured standard of living in the near future (Ahmad & Sabri, 2014). In the case of people with unstable jobs, financial security is always a challenge i.e., the volatile environment of gig economy with no job security in place makes the worker vulnerable to financial uncertainty thus affecting their ability to do financial planning particularly in the long term (Khapra et. al., 2025). Moreover, the inconsistent paychecks prompted these gig workers to engage in multiple job opportunities just to earn multiple income streams to sustain their living thus reducing their ability to perform financial planning resulting to unclear financial situation and financial insecurity (Kanimozhi et. al., 2025). Finally, these gig workers are operating under no formal employment contracts coupled with limited to no employee benefits making them vulnerable to income volatility (Ahmar, Dharmas, & Darminto, 2026).

Insurance awareness is considered as one of the distinguished dimensions of financial literacy. That is, when a person has sufficient level of financial literacy, he or she is considered to be aware of insurance offerings as part of precautionary measures against any uncertainties (Szumilcz, 2006; Dalkilic & Kirkbesoglu, 2015). To contextualize this, insurance awareness is one of the core processes in financial planning where an individual decided to take an insurance coverage for them to be protected in any uncertainties such as economic crisis or job loss (Maharudrappa et. al., 2023). However, similar to financial planning itself, insurance awareness was also influenced by multiple factors such as low financial literacy, high cost, and misconceptions about the purpose of insurance (Hasanah et. al., 2023). In the context of gig economy, given their informal set up as contractual or casual workers, their access to any insurance particularly relating to their health protection were limited as companies are not mandated to provide them with such (Adi, 2023). Similarly,

freelancers and gig workers, despite being exposed to numerous uncertainty, their insurance awareness remains low hence giving them limited access to any safety nets which highlighted the necessity of financial planning and management (International Labor Organization, 2025).

Financial stability is one of the primary objectives of doing financial planning. Financial stability of gig workers often tied with their working conditions where they are frequently experiencing irregular jobs, limited access to formal employee-employer relationship, and limited access to regular corporate framework (Mallick & Das, 2025). With this, the financial stability of gig workers was always under uncertain situation as they have inconsistent income which further complicate their ability to manage their financial resources leading to inability to perform financial planning activities (Torres et. al., 2024). Moreover, despite the potential benefits of more job opportunities, financial stability of gig workers was frequently under pressure as income fluctuations and inconsistent cash flows were considered as hidden risks of gig economy (O'Driscoll, 2025). Finally, most gig economy workers such as freelancers heavily relies on inconsistent hourly or weekly income putting pressures on their pockets causing financial instability thus exposing themselves from limited financial planning making them vulnerable to both economic and personal crisis (Khapra et. al., 2025).

Financial behavior refers to the skills and abilities of individuals in managing their financial resources achieve financial success (Mitchell, Li, & Decker, 2021; Winarta & Pamungkas, 2021). Financial behavior is highly influential in encouraging individuals to perform financial planning i.e., individuals with excellent financial behavior tend to do financial planning. In fact, excellent financial behavior usually constitutes excellence in budgeting, proactive saving, and effective debt management which were considered as tangible activities of effective financial planning (Mitchell, 2021; Sabri et. al., 2023). Gig economy workers frequently experiencing inconsistent income and constant income fluctuations usually prioritizing the budget for their day to day survival (Sopan, 2023). Nevertheless, gig economy workers, particularly freelancers, were always prioritizing daily cash flow and consistently implementing survival approach when it comes to their budgetary management hindering them from performing financial planning activities (Mitchell, 2021).

### III. METHODOLOGY

The research respondents for this empirical analysis were the freelancers and contractual-based job arrangements. This includes those freelancers who were involved in creative, business and technology, and similar services (Motas et. al., 2023). Likewise, gig economy workers are those workers with limited to no formal employee-employer relationship and are not bound to any formal employment contract (Mallick & Das, 2025). To achieve the main objective of this research, purposive sampling was used given its ability to pinpoint the correct representation of the population by giving the researchers freedom to select sample based on the purpose of the study resulting to a homogeneity within the sampled population (Klar and Leeper, 2019; Adeoye, 2023). With this, a total of 200 freelancers and contractual-based job arrangements were selected as samples.

To properly optimize this examination, the researchers followed the descriptive-exploratory research design. Exploratory-descriptive research design refers to the combination of exploratory and descriptive research designs where the main objective of doing so is to establish generalization of specific discipline or area as well as to describe a specific phenomenon of interest (Hunter, McCalum, & Howes, 2019). The study began with the development of survey questionnaire coming from varying literatures as bases for developing item statements or variables. Developing a self-made questionnaire is appropriate in doing exploratory studies provided that it will undergo stringent examination to determine its validity and reliability (Gunawan, Marzilli, & Aunsuroch, 2021). With this, the researcher conducted a pilot test to 35 respondents garnering a Cronbach's Alpha score of 0.767 thus confirming the reliability of the questionnaire (Taber, 2017). Aside from the reliability test, the self-made questionnaire undergone a stringent validation by experts to confirm its validity. Nevertheless, to measure each item, the 5-point Likert scale was used. Once the questionnaire was evaluated and properly structured, it was distributed to the research respondents and their responses were recorded, tallied, and analyzed following the statistical guidelines of Exploratory Factor Analysis using Principal Component Analysis.

### IV. RESULTS AND DISCUSSIONS

In presenting the results, it follows the appropriate procedures as indicated in the process of interpreting the exploratory factor analysis through principal component analysis. That is, Bartlett's Test of Sphericity as well as Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA) were performed to determine whether the data were fit and appropriate for factor analysis (Janssens et. al., 2008; Romero & Gono, 2021). Further, the succeeding techniques were the determination of communalities of variables, factor extraction method, scree plot illustration, rotation of factors, and labelling of factors.

The Bartlett's Test of sphericity was utilized to determine whether the correlation of variables exist. That is when the p-value is <0.05 as well as the chi-square was at large value, the correlation of variables exists hence appropriate for factor analysis (Hair et. al., 2019; Te et. al., 2019). Indicated in the Table 1 is the result of the Bartlett's test of Sphericity.

$\chi^2$	df	p
13023	136	<0.001

Table 1: Bartlett's Test of Sphericity

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Moreover, cementing the appropriateness of the data for factor analysis was the determination of KMO-MSA. Indicated in the Table 2 is the KMO-MSA result, which was at 0.808, way above the threshold of 0.5 and is closer to 1, which signifies the inter-correlation between variables thus demonstrating a good structure (Zhao et. al., 2021).

	MSA
Overall	0.808

Table 2: Kaiser-Meyer-Olkin Test of Sampling Adequacy

After the data were confirmed to be appropriate for factor analysis, the communalities of variables were then tested to determine whether the proportion of variance of the given variable can be explained by common factor (Te et. al., 2019). Accordingly, variables with communality score of  $\geq 0.50$  must be included in the solution. However, variables with communality score of  $\geq 0.40$  can be considered for inclusion depending on the research discretion of theoretical significance of the variable (Janssens et. al., 2008; Te et. al., 2019). Following these guidelines, variables coded as Q5, Q6, and Q7 were removed from the solution as their communality score did not meet the required thresholds compelling the researchers to re-run the solution and resulting to a final communality scores of each variable. Provided in the Table 3 is the individual communality score of each variable where the Q9 garnered the highest communality score at 0.643 while Q4 acquired the lowest communality score of 0.431.

Furthermore, as the assumptions for factor analysis were confirmed and met, the data reduction objective of this paper compelled the researcher to utilize the principal component analysis where the summarization of this variables into set of factors was performed (Shrestha, 2021). Nevertheless, using the eigenvalue and cumulative variance percentage as bases to determine the exact number (Hair et. al., 2019). According to the guidelines, the number of factors to be determined must have an initial eigenvalue of  $\geq 1$  with a cumulative variance percentage of at least  $\geq 60.000$ . With this, exhibited in the Table 4 is the factor extraction matrix which showed that there were five (5) variables for this solution i.e., the initial eigenvalue of the fifth variable was pointing at 1.095 with a cumulative variance percentage of 70.124.

Variable	Communality
Q4	0.431
Q8	0.442
Q12	0.443
Q17	0.447
Q10	0.466
Q2	0.493
Q15	0.500
Q3	0.512
Q14	0.521
Q19	0.526
Q1	0.538
Q11	0.538
Q18	0.541

Table 3: Individual Communality Scores of Variables

Component	Eigenvalue	% of Variance
1	5.388	31.696
2	2.233	44.833
3	1.786	55.338
4	1.418	63.681
5	1.095	70.124
6	0.75	74.537

Table 4: Factor Extraction Method

Moreover, following the determination on the number of factors to be formulated for the given solution, the scree plot was developed which is a graphical presentation of the factor extraction matrix (Janssens et. al., 2008; Te et. al., 2019). According to the guideline, the number of factors to be extracted must stop at the area where the plot formed an elbow or completely levelled. Figure 1 indicated the scree plot where the plot formed an elbow or completely levelled at the fifth

variable confirming that there were five (5) factors to be extracted from this solution (Hauben, Hung, & Hsieh, 2017).

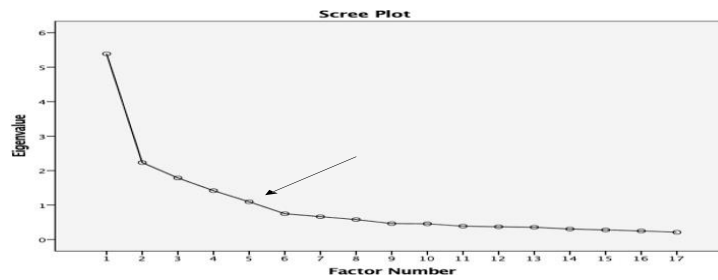


Figure 1: Scree Plot

In addition, the researchers performed the factor loading rotation to ensure that each variable demonstrate exclusive relationship to its factor as well as provide adequate interpretation (Hair et. al., 2019). Likewise, factor rotation was performed to develop a simple factor structure showing the representation of each variable to a factor (Janssens et. al., 2008; Hauben, Hung, & Hsieh, 2017). Moreover, in this case, given the data reduction as primary objective of this examination, where the factors developed can be used for other multivariate techniques, as well as the popularity of this rotation method, the researcher chose the orthogonal rotation technique (Hair et. al., 2019; Te et. al., 2019). To be specific, variables coded as Q9, Q10, Q8, Q4, Q1, and Q13 were grouped as Factor 1 given their significant factor loadings. Meanwhile, variables coded as Q18, Q16, and Q15 were grouped as Factor 2 considering their significant loadings. In contrast, variables coded as Q11, Q14, and Q12 were grouped as Factor 3 as their factor loadings were significant. Conversely, variables coded as Q20, Q19, and Q17 were grouped as Factor 4 given their significant factor loadings. Finally, variables coded as Q3 and Q2 were grouped as Factor 5 given their significant factor loadings. Shown in Table 5 is the simplified factor loading matrix of this examination.

	1	2	3	4	5
Q9	0.771				
Q10	0.714				
Q8	0.679				
Q4	0.579				
Q1	0.569				
Q13	0.478				
Q18		0.746			
Q16		0.723			
Q15		0.518			
Q11			0.844		
Q14			0.720		
Q12			0.667		
Q20				0.865	
Q19				0.733	
Q17				0.579	
Q3					0.966
Q2					0.559

Note: 'varimax' rotation was used.

Table 5: Factor Loading Matrix

As the factor loading matrix was finally formulated, the researcher proceeded to the penultimate step of EFA-PCA which is the labelling of factors. In labelling the factors, the researchers performed objective and subjective considerations ensuring that the labels of the factors strongly represent the best structure of the set of variables (Hair et. al., 2019; Te et.

al., 2019). For Factor 1, it was labelled as Financial Knowledge. Financial knowledge refers to the individual capacity to understand how financial management works thus allowing them to demonstrate excellent skills in budgeting (Banthia & Dey, 2022). Having financial knowledge is influential in shaping one’s financial well-being as individuals who possess such have the capacity to understand the importance of financial management and the consequence of failing to perform financial planning (Merter & Balcioglu, 2025). In contrast, for Factor 2, it was named as Financial Security. Financial security is a long-term attained state of confidence that is characterized by the sense of having security and financial freedom of choice, both now and in the future (Garman and Forgue, 2018). In the situation where an individuals have unstable jobs, particularly those who were from gig economy, financial security remains a challenge given their volatile cash flows which resulted to their limited capacity to perform financial planning (Khapra et. al., 2025). Meanwhile, for Factor 3, it was labelled as Insurance Awareness. As part of the process in building security, individuals, particularly from gig economy workers, must demonstrate insurance awareness for them to be protected from any uncertainty (Maharudrappa et. al., 2024). Unfortunately, majority of the gig economy workers, despite being exposed to numerous uncertainties and volatility, demonstrate minimal insurance awareness thus making them vulnerable to possible shocks and income volatility (International Labor Organization, 2025). Conversely, for factor 4, it was named as Financial Stability. The irregular and volatile job conditions of freelancers was considered as major obstacle in achieving financial stability (Mallick & Das, 2025). Consequently, this limits their ability to perform financial planning thus making them vulnerable to uncertainties particularly economic shocks (Torres et. al., 2023). Lastly, for factor 5, it was labelled as Financial Behavior. Financial behavior was known to be as significant factor for an individual to perform financial planning. That is, an individual with excellent financial behavior has the capacity to oversee every financial decision (Mitchell, 2021; Sabri et. al., 2023). However, as the gig economy workers constantly facing volatility in cash flow as well as continuously prioritizing their daily expenses, this put them in a situation where financial planning is the last priority in their financial decisions (Mitchell, 2021; Sopan, 2023).

As the factors were finally labelled, the researcher proceeded to conceptual framework development which encapsulates the financial planning challenges of gig economy workers as indicated in Figure 2.

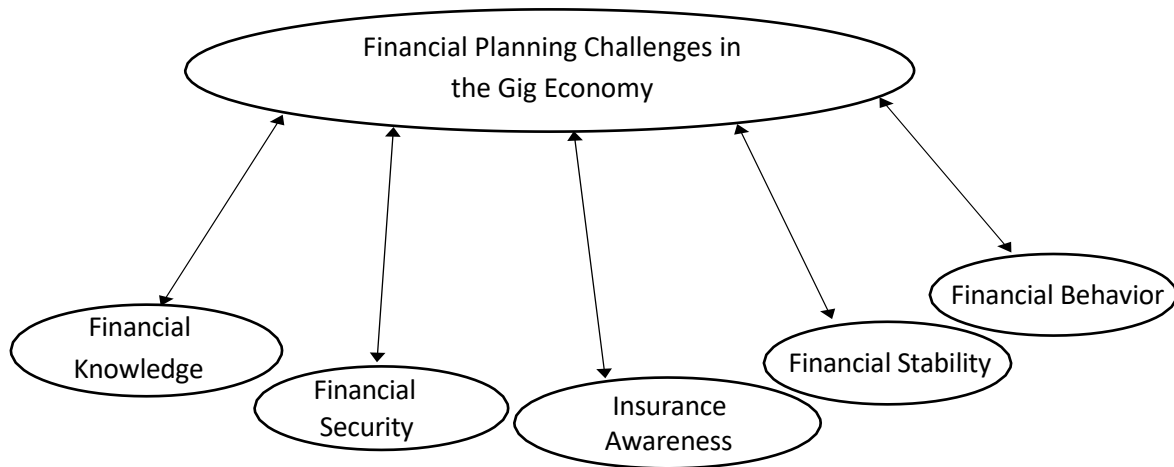


Figure 2: The Newly Developed Conceptual Framework of the Study

### V. CONCLUSIONS

Following the treatment of data using the exploratory factor analysis through principal component analysis, the researchers were able drawn conclusions from the findings. First, the data was confirmed to be fit for factor analysis. Second, there were five (5) financial planning challenges in the gig economy which were labelled as the financial planning challenges in the gig economy were financial knowledge, financial security, insurance awareness, financial stability, and financial behavior. Third, following the utilization of EFA-PCA, the newly developed paradigm which encapsulates the financial planning challenges in the gig economy was formulated. Finally, the result of the study confirmed the Theory of Personal Financial Planning and Theory of Planned Behavior which claimed that performing financial planning, in this case the gig economy workers, depend on their understanding on the different factors that influence the performance of such action or behavior.

Further as the results and conclusions were drawn, the researcher were able to outline some specific and targeted recommendation. First, for freelancers and gig economy workers, the researcher recommended that these individuals should invest time in understanding the importance of financial planning, given the volatility and uncertainties in their environment, as well as the financial planning challenges that hinders them from performing such behavior. Second, for financial institutions and its agents and participants, specific and targeted financial products must be developed and provide their service to gig economy workers as they perform financial planning and teach them the importance of having financial security and financial stability. Third, policymakers should promulgate specific policies that would protect the gig economy workers from volatility and uncertainties and perform their mandate to provide capacity building activities particularly in the area of financial education. Fourth, the educational institutions must include the findings of these study given the growing recognition of the gig economy. Finally, the future researchers who are willing to examine similar discipline must utilize the newly developed framework in other multivariate techniques as well as the findings of these study must be considered as part of their related literature.

### References:

- [1] Adeoye, M. A. (2023). Review of sampling techniques for education. *ASEAN Journal for Science Education*, 2(2), 87–94.
- [2] [2]Adi, S. (2023). The impact of the gig economy on gig worker health insurance: Literature review. *Advances in Public Health, Community and Tropical Medicine*. <https://doi.org/10.37722/APHCTM.2023404>
- [3] Ahmad, N. (2020). Gig economy: The future of working. *International Journal of Communication, Management and Humanities*, 1(2), 45–52.
- [4] Ahmad, S. Y., & Sabri, M. F. (2014). Understanding financial security from consumers' perspective: A review of literature. *International Journal of Humanities and Social Science*, 4(12), 110–115.
- [5] Ahmar, N., Dharma, A. S., & Darminto, D. P. (2026). Perceived income stability and financial security among gig workers in Indonesia: A socioeconomic and occupational analysis. *Business: Theory and Practice*, 27(1), 87–98. <https://doi.org/10.3846/btp.2026.24901>
- [6] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- [7] Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324.
- [8] Ajzen, I., & Schmidt, P. (2020). Changing behavior using the theory of planned behavior. In *The handbook of behavior change* (pp. 17–31).
- [9] Alvarez De La Vega, J. C., Cecchinato, M. E., & Rooksby, J. (2021). "Why lose control?" A study of freelancers' experiences with gig economy platforms. In *Proceedings of the CHI Conference on Human Factors in Computing Systems* (pp. 1–14). Association for Computing Machinery. <https://doi.org/10.1145/3411764.3445305>
- [10] Ang, K. G. (2024). The study of achieving personal investment success through financial goal setting. SSRN. <https://ssrn.com/abstract=4844636>
- [11] Ardho, D. A., & Sudrajad, O. Y. (2023). Factors affecting investment decisions in the gig economy in the City of Bandung. *International Journal of Cognitive Science and Research (IJCSRR)*, 8(7), 4810–4821. <https://pdfs.semanticscholar.org/0e13/9c5a383c793a8243ec0a1d502c4c8c4da522.pdf>
- [12] Banthia, D., & Dey, S. K. (2022). Impact of financial knowledge, financial attitude and financial behaviour on financial literacy: Structural equation modeling approach. *Universal Journal of Accounting and Finance*, 10(1), 327–337.
- [13] Consumer Financial Protection Bureau. (2024). Financial knowledge and decision-making skills. <https://www.consumerfinance.gov/consumer-tools/educator-tools/youth-financial-education/learn/financial-knowledge-decision-making-skills/>
- [14] Dalkilic, N., & Kirkbesoglu, E. (2015). The role of financial literacy on the development of insurance awareness. *International Journal of Economics and Finance*, 272–280.
- [15] Gunawan, J., Marzilli, C., & Aunguroch, Y. (2021). Establishing appropriate sample size for developing and validating a questionnaire in nursing research. *Belitung Nursing Journal*, 7(5), 356–360. <https://doi.org/10.33546/bnj.1927>
- [16] Hair, J., Black, W., Babin, B., & Anderson, R. (2019). *Multivariate data analysis*. Cengage Learning.
- [17] Hapsari, S. A. (2021). *The theory of planned behavior and financial literacy to analyze intention in mutual fund product investment*. In *5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)* (pp. 136–141). Atlantis Press.
- [18] Hasanah, N., Al Farisi, F. S., Maharani, R., & Risakotta, Z. R. (2023). Challenges and opportunities in the development of the insurance industry in Indonesia: A comprehensive analysis. *Indonesian Journal of Health Economics*, 8(1). <https://doi.org/10.7454/eki.v8i1.6227>

- [19] Hauben, M., Hung, E., & Hsieh, W. Y. (2022). An exploratory factor analysis of the spontaneous reporting of severe cutaneous adverse reactions. *Therapeutic Advances in Drug Safety*, 13. <https://doi.org/10.1177/20420986221125021>
- [20] Hunter, D. J., McCallum, J., & Howes, D. (2019). Defining exploratory-descriptive qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care*, 4(1). <http://eprints.gla.ac.uk/180272/>
- [21] Innocenti, S., Clark, G. L., & McGill, S. (2024). Experience of financial challenges, retirement concerns, and planning: Evidence from representative samples of workers in 16 countries. *Journal of Pension Economics and Finance*, 23(2), 183–201. <https://doi.org/10.1017/S1474747223000082>
- [22] International Labour Organization. (2025). Exploring the gig economy: Challenges and opportunities (Toolkit). <https://doi.org/10.54394/NMBW0887>
- [23] Janssens, W., Wijnen, K., De Pelsmacker, P., & Van Kenhove, P. (2008). Marketing research with SPSS.
- [24] Joshi, A., Jain, S., & Gupta, P. K. (2024). Challenges and impact of the gig economy. *Sustainable Economies*, 2(2), 96–96.
- [25] Jumady, E., Alam, S., Hasbiyadi, H., Fajriah, Y., & Anggraini, Y. (2024). The effect of financial planning on consumer debt management: The role of financial literacy, self-efficacy, and financial motivation. *Atestasi: Jurnal Ilmiah Akuntansi*, 7(1), 340–368.
- [26] Kanimozhi, V., Pojhaa, R. B., Kumar, R. D., & Paul, V. G. (2025). Economic implications of the gig economy: A study of income stability and job security of gig workers. *Indian Journal of Law and Legal Research*, 7(1), 7010–7028.
- [27] Khapra, S., Kartik, P., Pahal, P., Tushir, A., & Shruti. (2025). Financial realities of the gig economy: An analytical study on the money challenges of freelancers and platform-based workers. *International Journal of Science, Engineering and Technology*, 13(6).
- [28] Klar, S., & Leeper, T. J. (2019). Identities and social influence. In N. Ennaser (Ed.), *The Oxford handbook of behavioral political science*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190634155.013.7>
- [29] La Barbera, F., & Ajzen, I. (2021). Moderating role of perceived behavioral control in the theory of planned behavior: A preregistered study. *Journal of Theoretical Social Psychology*, 5(1), 35–45.
- [30] Maharudrappa, M., Ainapur, J., Dattatri, A. K., Deepika, B., Shilpa, & Vaishnavi. (2024). Impact of financial planning on insurance policy selection. *International Journal of Business and Management Invention (IJBMI)*, 13(10), 26–32.
- [31] Mallick, M., & Das, S. (2025). A study to explore the financial capability among gig workers in West Bengal, India. *Advances in Consumer Research*, 2(5), 286–293.
- [32] Manning, L. (2026). Financial planning: What it is and how to make a plan. Investopedia. [https://www.investopedia.com/terms/f/financial\\_plan.asp](https://www.investopedia.com/terms/f/financial_plan.asp)
- [33] Merter, A. K., & Balcioğlu, Y. S. (2025). Financial literacy and decision-making: The impact of knowledge gaps on financial outcomes. *Borsa Istanbul Review*, 25, 101–108. <https://doi.org/10.1016/j.bir.2024.07.001>
- [34] Miles, D. A. (2017). *A taxonomy of research gaps: Identifying and defining the seven research gaps* [Conference presentation]. Doctoral Student Workshop, Dallas, TX.
- [35] Mitchell, J., Li, X., & Decker, P. (2021). Gig workers' financial confidence and behavior. *Global Journal of Accounting and Finance*, 5(2), 88–105.
- [36] Novianti, I. D., & Ariani, K. R. (2023). The effect of financial knowledge and financial planning on financial skills with pocket money as a moderating variable in Generation Z. *International Journal of Social Science and Economic Research*, 8(3), 438–454. <https://doi.org/10.46609/IJSSER.2023.v08i03.014>
- [37] O'Driscoll, N. (2025). The gig economy paradox: Flexibility vs. financial stability for freelancers. LinkedIn. <https://www.linkedin.com/pulse/gig-economy-paradox-flexibility-vs-financial-odriscoll-fcma-cgma-eebje/>
- [38] Sabri, M. F., Anthony, M., Law, S. H., Rahim, H. A., Burhan, N. A. S., & Ithnin, M. (2023). Impact of financial behaviour on financial well-being: Evidence among young adults in Malaysia. *Journal of Financial Services Marketing*. <https://doi.org/10.1057/s41264-023-00234-8>
- [39] Sopan, W. S. (2023). Financial literacy for gig workers: Building stability in uncertain times. *Journal of Emerging Technologies and Innovative Research*, 10(12), a435–a441.
- [40] Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48, 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- [41] Tarver, J. (2026). Financial planning basics. *Forbes Advisor*. <https://www.forbes.com/advisor/investing/financial-advisor/financial-planning/>
- [42] Te, D., Sabanal, D., Castro, J., & Lelis, C. (2019). *Business research with statistical applications: Textbook and guidebook for doing and writing research*. REX Book Store.
- [43] Tjuanakis-Cox, A. (2026). What is a financial plan and why do I need one? *Morgan Stanley*. <https://www.morganstanley.com/insights/articles/what-is-a-financial-plan>

- [44] Torres, R. C., & Jimena, L. G. (2024). The shift to gig economy: How traditional employment stacks up against platform-based independent workers. Mapua Malayan Colleges Laguna.
- [45] Ukodei, S. (2024). Challenges and opportunities of financial planning and analysis managers. LinkedIn. <https://www.linkedin.com/pulse/challenges-opportunities-financial-planning-analysis-managers-ukodei-z96yf/>
- [46] Winarta, S., & Pamungkas, A. S. (2020). The role of financial behavior, financial attitude, financial strain, and risk tolerance in explaining financial satisfaction. In Proceedings of ICEBM 2020 (pp. 118-123). Atlantis Press. <https://doi.org/10.2991/aebmr.k.210507.018>
- [47] Yeo, K. H. K., Lim, W. M., & Yii, K.-J. (2024). Financial planning behaviour: A systematic literature review and new theory development. *Journal of Financial Services Marketing*, 29, 979-1001. <https://doi.org/10.1057/s41264-023-00249-1>
- [48] Zhao, Y., Sun, Q., Mo, X., Ma, Y., & Xu, X. (2021). Development of Medication Literacy Scale for Pediatric Population with Nephrotic Syndrome and assessment on reliability and validity. *Psychosomatic Medicine Research*, 3(3), 140-148.