Journal of Islamic Economics Lariba
(P-ISSN 2477-4839 E-ISSN 2528-3758)
2024, Vol. 10, No. 2, 1065-1090
https://doi.org/10.20885/jielariba.vol10.iss2.art23

UNIVERSITAS ISLAM INDONESIA

OPEN ACCESS

Check for updates

Financial behavior of working women in the sandwich generation in Sleman Regency, Yogyakarta, Indonesia

Honesty Artanty & Soya Sobaya

Program Studi Ekonomi Islam (S1), Universitas Islam Indonesia, Yogyakarta, Indonesia

ABSTRAK

Introduction

Women in the sandwich generation face unique financial challenges, managing intergenerational responsibilities while navigating socio-economic disparities. This study examines the financial behaviors of sandwich generation women in Sleman District, Indonesia, where regional and cultural differences significantly impact financial practices.

Objectives

This study aims to explore key aspects of financial behavior, including planning, savings, insurance, investments, debt management, and expenditures. The research investigates how these behaviors differ between urban and rural (tourist area) participants and identifies areas for improvement to promote financial resilience.

Method

A qualitative descriptive comparative approach was employed. Data were collected through structured questionnaires and semi-structured interviews with 34 participants, divided evenly between urban and rural regions. The analysis focused on identifying patterns and disparities in financial behaviors and contextual influences.

Results

Findings revealed gaps in retirement planning, emergency savings, and investment practices, with urban participants demonstrating better financial literacy and access to formal financial systems. Rural participants relied heavily on informal financial mechanisms and community networks. Insurance uptake was low due to mistrust and limited awareness of Islamic financial products, while debt management reflected strong financial responsibility. Participants also displayed commendable prioritization of essential expenses and charitable giving.

Implications

The study highlights the need for targeted financial literacy programs, accessible financial products, and interventions tailored to regional

JEL Classification:
L21, L26, L84, Z12

KAUJIE Classification:
C54, H42, H65, P0

ARTICLE HISTORY:

Submitted: December 26, 2024
Revised: December 31, 2024
Accepted: December 31, 2024
Published: December 31, 2024

KEYWORDS:

financial behavior; Islamic financial principles; regional disparities; sandwich generation; women's financial management

Contact: Soya Sobaya ✉ soya.sobaya@uii.ac.id

and cultural contexts. Addressing these gaps can empower sandwich generation women to achieve greater financial independence and resilience.

Originality/Novelty

This research integrates gender, regional, and cultural perspectives to provide a nuanced understanding of financial behavior among sandwich generation women. It contributes actionable insights for policymakers and financial institutions to design effective interventions, addressing an underexplored demographic in the literature.

CITATION: Artanty, H. & Sobaya, S. (2024). Financial behavior of working women in the sandwich generation in Sleman Regency, Yogyakarta, Indonesia. *Journal of Islamic Economics Lariba, 10*(2), 1065-1090. https://doi.org/10.20885/jielariba.vol10.iss2.art23

INTRODUCTION

The financial behavior of individuals is a critical aspect of economic well-being, influencing personal stability and broader societal health. Effective financial management is necessary for navigating short-term demands while safeguarding future security, particularly in the face of escalating living costs and economic uncertainties. Among different demographic groups, the sandwich generation—individuals simultaneously responsible for supporting their aging parents and children—faces unique financial challenges. Originating in Miller's (1981) study, the term "sandwich generation" has gained increased relevance due to growing eldercare needs and the demands of raising children. Within this demographic, women often bear the dual burden of economic responsibility and caregiving, leading to a range of financial behaviors that warrant in-depth exploration (Dewi & Wiksuana, 2022; Irawaty & Gayatri, 2023; Lee et al., 2015). This study focuses on such dynamics in Sleman, Yogyakarta, Indonesia, an area characterized by high elderly dependency ratios and a growing need for intergenerational financial management strategies.

Financial behavior, as highlighted by Perry & Morris (2005), includes planning, saving, investing, and managing obligations such as debt and expenditures (Rahman et al., 2021). Effective financial behavior, particularly within the sandwich generation, is a determinant of long-term stability and intergenerational financial health (Dewi & Wiksuana, 2022; Putri et al., 2024; Rita et al., 2024). Theoretical insights into financial literacy, as well as empirical evidence from regions such as Indonesia, show disparities in financial planning and decision-making, especially when considering women in caregiving roles (Arini et al., 2020; Larisa et al., 2021; Leviastuti et al., 2023). In the Indonesian context, the increasing participation of women in the workforce has altered traditional family dynamics, with many women taking on additional responsibilities as income earners and financial managers. As of February 2024, the proportion of female labor force participation rate in the labor market has reached 55.41 percent (Monica, 2024), underscoring the significance of understanding their financial behaviors.

The core research problem addressed in this study is the financial behavior of women in the sandwich generation in Sleman. With dual caregiving responsibilities for children and elderly parents, these women face a unique set of financial challenges. Issues such as the lack of routine financial evaluation, inadequate retirement planning, and underutilization of formal savings instruments are compounded by limited financial literacy and institutional trust. The lack of systematic financial education among these women exacerbates financial insecurity, creating a cyclical dependence across generations. This study seeks to analyze these behaviors and propose solutions rooted in financial literacy and tailored interventions, addressing a gap in the literature on gender-specific financial challenges in intergenerational caregiving.

Existing studies offer broad insights into financial literacy, but few address the specificities of the sandwich generation, particularly in culturally and economically diverse regions such as Indonesia. For instance, previous studies (Dobson & Dobson, 1985; Evans et al., 2016; Liu et al., 2022; Synowiec-Piłat et al., 2022) identify psychological dimensions in financial decision-making, while other studies highlight the societal consequences of poor financial management (Do et al., 2014; Grundy & Henretta, 2006; Hammer & Neal, 2008; Riley & Bowen, 2005; Shi et al., 2024). However, these findings remain generalized and insufficiently tailored to the unique pressures faced by women juggling employment and caregiving roles. Islamic financial principles, which emphasize responsibility and ethical decision-making, offer a potential framework for addressing these challenges but require localized application to be effective (Amir, 2021).

A critical gap lies in integrating these theoretical frameworks with practical strategies that account for regional, cultural, and gendered nuances. Studies such as those by Kusdiana & Safrizal (2022) underscore the influence of financial literacy on individual decision-making but lack specificity in addressing the needs of women in the sandwich generation. Additionally, while existing literature highlights financial mismanagement as a key driver of economic stress, it seldom provides actionable recommendations for breaking the cycle of intergenerational financial dependency. This research aims to fill that gap by focusing on actionable, culturally informed financial education tailored to the needs of women in Sleman.

The study draws on a comparative descriptive method to explore financial behaviors across urban and tourist regions in Sleman. Previous research by Nugraha et al. (2018) suggests that urban and non-urban settings yield differing financial behaviors due to varying socio-economic pressures and access to resources. This differentiation is critical in understanding how regional contexts influence financial literacy and management practices. For instance, urban residents often exhibit greater exposure to formal financial systems, while rural populations may rely more on informal mechanisms. By examining these regional distinctions, the study provides nuanced insights into how location-specific interventions could improve financial literacy and behavior among sandwich generation women.

The literature provides foundational knowledge of financial behavior, but the unique intersection of gender, caregiving responsibilities, and socio-economic context remains underexplored. This study addresses this gap by investigating the financial behaviors of working women in Sleman's sandwich generation. It emphasizes the importance of integrating localized financial literacy education into broader economic strategies to alleviate the financial burdens of caregiving. The research also underscores the role of Islamic financial principles in fostering ethical and sustainable financial practices, providing a culturally resonant framework for intervention.

The primary objective of this research is to analyze the financial behavior of sandwich generation women in Sleman, examining their practices in planning, saving, investing, and managing financial obligations. The study's novelty lies in its regional focus and its emphasis on the intersection of gender, caregiving, and financial behavior. By offering targeted recommendations for financial literacy education, the study aims to empower women to break the cycle of intergenerational dependency and achieve greater financial autonomy. Furthermore, the research highlights the potential for systemic interventions that address both immediate financial needs and long-term stability, providing a blueprint for future studies on similar demographics in other regions.

LITERATURE REVIEW

Financial Behavior: Concepts and Determinants

Financial behavior, as a field of study, examines how individuals or households manage their financial resources, encompassing aspects such as planning, saving, investing, and expenditure management. Hilgert et al. (2003) assert that financial behavior is a reflection of individuals' ability to manage income, savings, credit, and investments efficiently. Effective financial behavior ensures stability and long-term financial health, while inadequate financial practices often result in adverse socio-economic consequences. Perry & Morris (2005) identified key aspects of sound financial behavior, including controlling expenses, timely bill payments, budgeting, and regular savings. These indicators are pivotal in assessing financial literacy and behavior among diverse demographic groups, including the sandwich generation.

The psychological dimensions of financial decision-making have also gained scholarly attention. Suryanto (2017) emphasizes that financial behavior is influenced by cognitive and emotional factors, shaping decisions regarding income allocation, risk-taking, and long-term planning. Similarly, Suarna et al. (2021) discuss how the balance between current financial demands and future security is central to financial management. This dynamic is particularly significant for individuals navigating complex intergenerational responsibilities, as is the case with the sandwich generation.

Financial Literacy and Its Impact on Behavior

Financial literacy is a critical determinant of financial behavior, influencing individuals' ability to make informed decisions. Gitman & Zutter (2011) defines financial literacy as a combination of financial knowledge, attitudes, and skills that enable sound financial decisions. Numerous studies (Agarwal et al., 2015; Augustin & Martin, 2022; Crossan et al., 2011; Lone & Bhat, 2024; Mustafa et al., 2023) highlight the positive correlation between financial literacy and financial planning. Financially literate individuals are better equipped to allocate resources, manage risks, and prepare for future contingencies (Fang, 2024; Noviarini et al., 2021; Sánchez Santos, 2020), which are essential competencies for the sandwich generation.

While financial literacy improves financial behavior, the disparities in its distribution across genders and socio-economic classes remain a concern. Women, particularly in developing economies, often face limited access to financial education and resources, exacerbating financial challenges. As previous studies (Mthembu et al., 2022; Oktaviani et al., 2022; Padmaja & Rajakumar, 2022; Rahmah, 2014) note, women frequently manage household finances informally, lacking structured approaches to budgeting and saving. This underscores the need for targeted interventions that enhance financial literacy among women, particularly those in caregiving roles.

The Sandwich Generation: Financial Burdens and Behavioral Patterns

The term "sandwich generation," introduced by Miller (1981), refers to individuals who concurrently support aging parents and dependent children (Abramson, 2015; DeRigne & Ferrante, 2012; Hämäläinen & Tanskanen, 2021; Steiner & Fletcher, 2017). This demographic faces unique financial pressures, including high healthcare costs for parents and educational expenses for children. DeRigne & Ferrante (2012) observe that the sandwich generation often experiences financial strain due to the dual caregiving roles, leading to compromised savings and long-term financial planning.

In Indonesia, the sandwich generation is predominantly composed of women, many of whom work to supplement household incomes. A significant proportion of women in Indonesia assume dual roles as caregivers and income earners (Ramadhani, 2016; Samsidar, 2020), contributing to household financial stability while managing the demands of intergenerational caregiving. Previous studies further highlight the correlation between the aging population and the rising prevalence of the sandwich generation in Indonesia (Aji & Harani, 2023; Irawaty & Gayatri, 2023; Supriatna et al., 2022), particularly in regions like Yogyakarta with higher life expectancy rates.

Gender and Financial Behavior

Gender plays a crucial role in shaping financial behavior, with women often facing distinct challenges and expectations. In many cultures, women are traditionally responsible for household financial management, albeit informally. Previous studies suggest that women's financial behavior is influenced by their dual roles as caregivers and contributors to household income (Friedemann & Buckwalter, 2014; Gonçalves et al., 2021; Lee & Tang, 2015; Masterson & Hoobler, 2015). Women in the sandwich generation often prioritize immediate financial needs over long-term planning, reflecting the pressures of caregiving and resource allocation.

The increasing workforce participation of women has altered traditional financial dynamics, enabling greater autonomy in financial decision-making. However, as previous studies (Brailey & Slatton, 2019; Lichard et al., 2021; Mowpia, 2023) note, working women often face the "second shift," balancing professional responsibilities with household duties. This dual burden underscores the importance of financial literacy and support systems that address the unique needs of working women in caregiving roles.

Financial Behavior in Islamic Contexts

Islamic financial principles provide a framework for ethical and responsible financial behavior, emphasizing values such as honesty, fairness, and prudence. Islamic financial behavior as a holistic approach that integrates spiritual and material considerations, encouraging individuals to manage resources responsibly while adhering to Sharia principles (Nawi et al., 2022; Yeni et al., 2023). Practices such as zakat, sadaqah, and debt management are central to Islamic financial behavior, aligning with broader goals of social and economic justice.

In the context of the sandwich generation, Islamic financial principles offer valuable insights into resource allocation and planning. For instance, the Quran emphasizes the importance of intergenerational support while advocating for financial independence and preparedness (Surah Yusuf: 46-49). Wahyuningtyas et al. (2022) highlight how Islamic financial practices can guide household financial management, fostering stability and reducing intergenerational dependency.

Regional and Cultural Dimensions of Financial Behavior

Regional and cultural contexts significantly influence financial behavior, particularly in diverse settings like Indonesia. Sleman, a district in Yogyakarta, presents unique socio-economic dynamics, with urban and rural populations exhibiting distinct financial behaviors. Nugraha, Sulasman, and Supedi (2018) note that urban residents often have greater access to formal financial systems, enabling structured approaches to saving and investing. In contrast, rural populations may rely more on informal mechanisms, shaped by community norms and limited financial infrastructure.

These regional differences are critical in understanding the financial behavior of the sandwich generation in Sleman. Urban residents may prioritize formal savings and investments, while those in tourist areas might focus on short-term income generation from tourism-related activities. This dichotomy underscores the need for localized interventions that address the specific needs of each group, enhancing financial literacy and access to resources.

Sandwich Generation from Islamic Perspective

The sandwich generation, typically identified as middle-aged adults who simultaneously care for both elderly parents and dependent children, presents a unique set of challenges that intersect with cultural and religious values, particularly within the Islamic perspective. In many Muslim communities, such responsibilities are not merely social obligations but are also deeply rooted in religious teachings and principles regarding filial piety and family care. As observed in Malaysian studies, Muslims place a high value on caring for their aging parents, viewing it as both a familial duty and a religious imperative (Noor & Isa, 2020). The Quran emphasizes the importance of honoring parents, which enhances the moral obligation felt by individuals in the sandwich generation to balance these caregiving roles while adhering to Islamic tenets (Kusumaningrum, 2023).

In the Indonesian context, intergenerational care is significantly shaped by cultural beliefs, where the teachings of Islam foster strong family bonds and a collective responsibility towards caring for both children and aging parents (Syufa'at et al., 2023). These relationships are characterized by a mutual respect and support system, echoed in Quranic teachings that connect the caregiving concept to one's faith and moral rectitude. A study elaborates on the pertinence of these teachings to modern dynamics, reflecting upon how they inform the sandwich generation's approach to caregiving (Kusumaningrum, 2023).

Moreover, the contemporary challenges faced by the sandwich generation, such as financial strain and emotional exhaustion, are amplified by the expectations set forth by family and religious conventions. For instance, in Turkey, the demographic realities showcasing increased longevity complicate caregiving roles, significantly stressing women in the sandwich generation (Terkoğlu & Memiş, 2022). Islamic teachings advocate for compassion and support; however, the pressures associated with caregiving can lead to overwhelming burnout and psychological distress if not addressed adequately (Syufa'at et al., 2023). The intersection of gender roles, expectations of self-sacrifice, and systematic challenges in fulfilling these responsibilities often lead to detrimental health outcomes for caregivers within this framework (Pashazade et al., 2024).

Further highlighting these challenges, caregivers often face difficulties related to time constraints and a lack of sufficient support systems, exacerbated by societal expectations for unwavering devotion to familial duties. The emotional dimensions of caregiving are pronounced within the context of Islamic family values, where caregivers are often left to navigate their own mental health amidst considerable responsibilities (Syufa'at et al., 2023; Kusumaningrum, 2023). Notably, the role of community support is crucial in providing balance and respite, enabling families to share the load (Pashazade et al., 2024). Therefore, while Islamic values promote care for the elderly, they also necessitate community-based interventions to support the sandwich generation effectively.

Gaps in Existing Literature

While the literature provides valuable insights into financial behavior and the sandwich generation, significant gaps remain. Most studies focus on general financial behavior, with limited exploration of the intersection between gender, caregiving, and regional contexts. Research on the sandwich generation in Indonesia is sparse, particularly concerning women's financial behaviors in diverse socio-economic settings.

Additionally, existing studies often emphasize theoretical frameworks without offering practical solutions tailored to specific demographics. For instance, while Islamic financial principles are widely discussed, their application in addressing the challenges of the sandwich generation is underexplored. Similarly, regional studies highlight differences in financial behavior but lack actionable recommendations for improving financial literacy and management practices.

METHOD

Research Approach and Design

This study employs a qualitative approach with a descriptive comparative methodology to investigate the financial behaviors of working women in the sandwich generation residing in Sleman District, Yogyakarta. The qualitative approach is suitable for exploring the intricate social and economic dynamics faced by these women, while the descriptive comparative method allows for the identification and analysis of differences in financial behaviors between urban and rural (tourist) populations. This methodological choice is supported by the need to account for regional socio-economic variations, as highlighted by Nugraha et al. (2018), who noted that urban settings often present distinct financial patterns compared to non-urban environments.

Research Setting and Duration

The study was conducted in Sleman District, located in the Special Region of Yogyakarta, Indonesia. Sleman was chosen for its unique demographic characteristics, including the highest population density in the region and a substantial proportion of individuals belonging to the sandwich generation. According to the revised Regional Spatial Plan (Perda No. 12/2012), Sleman is divided into urban areas, such as Sleman, Ngaglik, Mlati, Gamping, and Depok, and rural areas with significant tourism activities, including Minggir, Seyegan, Godean, Tempel, and Pakem. This diversity provides a valuable context for comparing financial behaviors. The study was conducted over six months, from December 2022 to June 2023.

Population and Sampling Strategy

The target population for this research consisted of female workers in the sandwich generation within Sleman District. According to data from Statistics Indonesia (2021), the total number of women in this category was 309,090. Given the exploratory nature of the study, a non-probability convenience sampling technique was used. Convenience sampling, as described by Ayomi (2023), enables researchers to select participants who are readily accessible and meet the study's inclusion criteria.

A total of 58 respondents were initially approached, and 34 participants were ultimately selected based on their alignment with the defined characteristics of the sandwich generation. These criteria included being actively employed and simultaneously supporting dependent children and elderly parents. This sample size was deemed sufficient for qualitative analysis, providing diverse perspectives on financial behaviors.

Data Collection Techniques

The study employed a combination of primary data collection methods, including structured questionnaires and semi-structured interviews. These methods were chosen to capture both quantitative indicators of financial behavior and qualitative insights into participants' decision-making processes.

1. Questionnaires:
   Structured questionnaires were distributed to all 34 participants to gather data on key aspects of financial behavior. The questionnaire was designed based on established frameworks, such as those proposed by previous researchers (Gitman & Zutter, 2011; Hilgert et al., 2003). It covered six main dimensions of financial behavior: financial planning, saving, insurance, investment, debt management, and other expenditures. Participants were asked to respond using predefined scales or provide short answers to specific questions, such as their budgeting practices, retirement planning, and perceptions of financial security.
2. Interviews:
   To complement the questionnaire data, in-depth interviews were conducted with a subset of 8 participants selected through purposive sampling. These interviews explored the contextual factors influencing financial behaviors, such as cultural norms, economic pressures, and individual motivations. The semi-structured format allowed for flexibility, enabling participants to elaborate on their experiences while ensuring consistency across interviews.

Variables and Operational Definitions

The study defined its variables both conceptually and operationally to ensure clarity and focus.

1. Conceptual Definitions:
   - Financial Behavior: Refers to how individuals or families manage financial resources, encompassing activities such as budgeting, saving, investing, and managing obligations (Gitman & Zutter, 2011).
   - Sandwich Generation: Denotes individuals simultaneously supporting dependent children and elderly parents, often facing financial strain due to dual caregiving roles (Miller, 1981).
   - Working Women: In this study, working women are defined as those who are actively employed and contribute to household income while managing caregiving responsibilities.

1. Operational Definitions:
   The operationalization of variables focused on measurable indicators derived from the literature:

- Financial Planning: Participants' practices in tracking income and expenses, budgeting, and planning for future financial needs.
- Saving: The presence of regular savings, emergency funds, and allocation of income toward long-term goals.
- Insurance: Ownership and type of insurance policies, including perceptions of their utility and reliability.
- Investment: Engagement in investment activities, including types of investments and motivations.
- Debt Management: Participants' strategies for handling debt, including repayment practices and prioritization of financial obligations.
- Expenditures: Patterns of distinguishing between needs and wants, as well as charitable giving practices.

Data Analysis

Data analysis followed a thematic approach to identify patterns and insights from the collected data. Thematic analysis, as described by Braun & Clarke (2006), is a method for systematically identifying, organizing, and interpreting key themes within qualitative data.

1. Questionnaire Data:
   Responses were categorized and quantified where applicable to identify trends in financial behavior. For example, the proportion of participants engaging in routine budgeting or maintaining emergency funds was calculated to provide an overview of financial literacy levels.
2. Interview Data:
   Interview transcripts were coded using NVivo software to facilitate the identification of recurring themes. Codes were grouped into broader categories, such as "financial planning practices" and "perceived barriers to financial security." These themes were then compared across urban and rural participants to identify contextual variations.
3. Comparative Analysis:
   The study employed a comparative lens to examine differences in financial behaviors between participants from urban and rural areas. This analysis considered factors such as access to financial institutions, cultural attitudes toward saving and investment, and exposure to financial literacy programs.

Ethical Considerations

The study adhered to ethical standards for research involving human participants. Informed consent was obtained from all participants before data collection, ensuring they were fully aware of the study's objectives, procedures, and potential risks. Participants were assured of confidentiality, and identifying information was anonymized in all reports and publications. The study also received approval from the relevant institutional review board, aligning with ethical guidelines for social science research.

RESULTS

Overview of Participants

The study examined the financial behaviors of 34 women in the sandwich generation residing in Sleman District. The participants were selected to reflect diverse socio-economic backgrounds and living conditions, with 17 residing in urban areas and 17 in rural areas identified as tourist regions. These two groups enabled a comparative analysis of financial behaviors based on regional differences. Participants' ages ranged from 30 to 55, with all actively employed in various sectors, including education, hospitality, and retail. All participants were simultaneously supporting dependent children and elderly parents, consistent with the definition of the sandwich generation.

Financial Planning Practices

Financial planning among participants exhibited considerable variability, with clear differences between urban and rural respondents.

- Income Tracking and Budgeting:
  Urban participants showed a higher tendency to routinely track income and expenses. Approximately 76% of urban respondents reported maintaining monthly budgets, compared to 53% in rural areas. This disparity may stem from differences in exposure to financial literacy resources and access to financial institutions. Rural respondents often relied on informal systems of financial management, such as verbal agreements or undocumented budgeting, reflecting limited engagement with formal financial tools.
- Retirement Planning:
  Across both groups, retirement planning was identified as a significant gap. Only 32% of participants had dedicated retirement savings, and most relied on expectations of familial support or inheritance. This finding highlights a critical area for intervention, as it underscores a lack of preparedness for future financial needs. Urban participants were slightly more likely to prioritize retirement savings, but the difference was not statistically significant.

Saving Habits

The study revealed notable trends in saving habits, influenced by both regional context and socio-economic pressures.

- Regular Savings:
  Urban respondents were more consistent in maintaining regular savings, with 64% reporting monthly contributions to savings accounts compared to 41% of rural respondents. The discrepancy aligns with previous findings that urban residents generally have greater access to formal banking systems. However, rural participants often relied on informal savings methods, such as community-based arisan systems, which provided social and financial support.

- Emergency Funds:
  Emergency savings were a weak point for most participants, with only 29% indicating that they had a dedicated fund for unexpected expenses. This lack of preparedness was more pronounced among rural respondents, where reliance on familial support networks was a common fallback strategy.

Insurance Coverage

Insurance ownership varied significantly between the two groups, reflecting differing levels of trust and access to formal financial products.

- Insurance Adoption:
  Half of the participants did not have any form of insurance. Among those who did, workplace-provided health insurance was the most common type. Urban respondents demonstrated higher levels of insurance ownership (59%) compared to rural participants (35%).
- Barriers to Insurance Uptake:
  Low trust in insurance institutions emerged as a primary barrier, particularly in rural areas. Participants cited concerns over complex processes and perceived unreliability as reasons for avoiding insurance. Additionally, awareness of Islamic insurance products (takaful) was limited, despite these products aligning with the participants' religious and cultural values.

Investment Practices

Investment behaviors were generally underdeveloped across the participant pool, although urban respondents showed greater engagement in this area.

- Types of Investments:
  Only 26% of participants reported having any form of investment, with urban residents leading in investment activity. Common investment types included mutual funds, gold, and property. Rural participants demonstrated minimal engagement with formal investment products, often citing lack of knowledge and perceived risks as barriers.
- Motivations for Investment:
  Among those who invested, the primary motivations were children's education and wealth accumulation for inheritance. These goals reflect the participants' intergenerational financial responsibilities and long-term aspirations for family well-being.

Debt Management

Debt was a significant aspect of participants' financial behavior, with varying implications for financial stability.

- Prevalence and Types of Debt:
  A majority (68%) of participants had outstanding debt, primarily long-term loans for housing or business purposes. Urban participants were more likely

to use formal financial institutions for borrowing, while rural participants relied on informal sources, such as local moneylenders or family loans.

- Debt Repayment:
  Debt repayment practices differed between the groups. Urban respondents generally adhered to structured repayment schedules, whereas rural participants faced higher rates of irregular repayment due to fluctuating incomes. Despite these challenges, most participants prioritized debt repayment over discretionary spending, indicating a high level of financial responsibility.

Expenditure Management

Participants' management of expenditures highlighted their ability to distinguish between needs and wants, although financial constraints often limited their flexibility.

- Needs vs. Wants:
  Most participants demonstrated awareness of the distinction between essential and non-essential expenses. Urban participants allocated a greater proportion of their income to discretionary spending, reflecting higher disposable incomes. Rural respondents, on the other hand, exhibited more frugal spending patterns, driven by necessity rather than preference.
- Charitable Giving:
  Charitable giving was a notable aspect of participants' financial behavior, with 82% reporting regular contributions to religious or community causes. This behavior aligns with cultural and religious norms that emphasize the importance of zakat and sadaqah.

Regional Differences in Financial Behavior

The comparative analysis between urban and rural participants highlighted several key regional differences:

- Access to Financial Resources:
  Urban participants had greater access to banks, insurance providers, and investment opportunities, enabling more structured financial management. Rural participants relied more on informal systems and community networks, which often lacked the stability and scalability of formal financial products.
- Financial Literacy:
  Urban participants exhibited higher levels of financial literacy, demonstrated by their engagement with budgeting, saving, and investment practices. Rural participants faced significant knowledge gaps, particularly regarding insurance and investment products, underscoring the need for targeted financial education.

Key Insights

The findings reveal a multifaceted picture of financial behavior among women in the sandwich generation in Sleman District:

1. Strengths:
   Participants displayed commendable financial responsibility, particularly in managing debt and prioritizing charitable giving. These behaviors reflect strong cultural and familial values that emphasize intergenerational support and social responsibility.
2. Weaknesses:
   Significant gaps were identified in retirement planning, emergency savings, and investment practices. These weaknesses compromise participants' long-term financial stability and exacerbate their vulnerability to economic shocks.
3. Opportunities:
   The findings highlight opportunities for intervention, including the promotion of financial literacy programs tailored to the needs of urban and rural populations. Expanding access to Islamic financial products, such as takaful and halal investment options, could address participants' trust and accessibility concerns.

DISCUSSION

Overview of Findings

This study explored the financial behaviors of women in the sandwich generation in Sleman District, focusing on key aspects such as financial planning, savings, insurance, investments, debt management, and expenditures. The results underscore significant challenges and strengths, revealing the complex interplay between socio-economic, cultural, and regional factors. By comparing urban and rural (tourist area) participants, this research provides insights into how context influences financial decisions, highlighting areas that require targeted interventions.

Financial Planning: A Critical Deficiency

Effective financial planning is essential for achieving long-term stability, particularly for individuals juggling intergenerational responsibilities. The findings indicate that many participants lacked consistent financial planning practices. Urban respondents were more likely to maintain budgets and track expenses regularly, while rural participants often relied on informal methods. This aligns with previous research (Bird et al., 2014; Hilgert et al., 2003; Thakker, 2023; Vishwas A. et al., 2022) emphasizing that structured financial planning is a cornerstone of sound financial behavior.

The absence of retirement planning among most participants is particularly concerning. Only 32% of respondents had savings specifically allocated for retirement, reflecting a broader trend of prioritizing immediate needs over future security. This aligns with observations by previous research (Bogan, 2015; DeRigne & Ferrante, 2012; Khasanah et al., 2023; O'Sullivan, 2015; Pak, 2024) noting that sandwich generation members often struggle to plan for their own financial futures due to competing demands. This deficiency highlights the need for financial literacy programs that emphasize long-term planning and the importance of establishing retirement savings early.

Savings and Emergency Funds: Strengths and Weaknesses

The study revealed mixed results regarding savings behavior. Urban participants demonstrated greater consistency in maintaining regular savings, likely due to better access to financial institutions and resources. However, rural participants relied heavily on informal savings mechanisms, such as community-based arisan systems. While these systems offer social support, they lack the stability and scalability of formal savings instruments.

The lack of emergency funds among most participants is a significant vulnerability. Emergency savings are crucial for mitigating financial shocks, yet only 29% of respondents had such funds. This aligns with findings of previous research (Anshika, 2017; Friedline & West, 2016; Kusdiana & Safrizal, 2022; Lusardi, 2015) noting that limited financial literacy often results in inadequate preparation for unexpected expenses. Promoting awareness of the importance of emergency funds and providing access to formal financial products could address this gap.

Insurance Coverage: Addressing Barriers

Insurance ownership was limited among participants, particularly in rural areas. The low adoption rate (50% overall) reflects both systemic barriers and individual perceptions. Many participants cited mistrust of insurance institutions as a primary reason for avoiding coverage, particularly in rural areas where awareness of Islamic insurance (takaful) was limited.

This finding underscores the need for financial institutions to address trust issues by simplifying processes, ensuring transparency, and promoting culturally resonant products. As previous studies highlight, Islamic financial principles offer a framework for ethical and accessible financial products (Ahmad et al., 2022; Amir, 2021; Lekpek & Ibrović, 2021; Lusardi, 2015; Rifas et al., 2023), making takaful a viable option for addressing participants' concerns. Expanding awareness and availability of takaful could improve insurance uptake and provide participants with essential financial protection.

Investments: Untapped Potential

Investment behaviors among participants were generally underdeveloped, with only 26% reporting any form of investment. Urban respondents were more likely to engage in investment activities, reflecting greater financial literacy and access to investment opportunities. This aligns with observations in previous studies noting that urban residents often benefit from better exposure to financial systems (Mahmood et al., 2022; Mitlin et al., 2018; Nugraha et al., 2018; Xu et al., 2021).

For rural participants, barriers to investment included lack of knowledge and perceived risks. Addressing these barriers requires targeted financial education that demystifies investment concepts and emphasizes their role in achieving long-term financial goals. Additionally, promoting low-risk, culturally aligned investment options, such as gold and sukuk (Islamic bonds), could encourage greater participation.

Debt Management: A Double-Edged Sword

Debt was a significant aspect of participants' financial behavior, with 68% reporting outstanding loans. Urban participants primarily relied on formal financial institutions for borrowing, while rural participants turned to informal sources such as moneylenders or family loans. This divergence reflects differences in access to resources and highlights the limitations of informal borrowing, including higher costs and less structured repayment terms.

Despite the prevalence of debt, participants exhibited high levels of financial responsibility, prioritizing repayment over discretionary spending. This finding aligns with Islamic financial principles, which emphasize the importance of fulfilling obligations (Amir, 2021; Lena & Syarofi, 2022; Marsella & Nurzaman, 2023; Suharli et al., 2022). However, the reliance on long-term loans for essential needs, such as housing and education, underscores the need for affordable credit options that align with participants' financial capacities.

Expenditures: Balancing Needs and Wants

Participants demonstrated commendable awareness in distinguishing between needs and wants, with most prioritizing essential expenditures. Urban participants allocated more income to discretionary spending, reflecting higher disposable incomes, while rural participants exhibited more frugal spending patterns.

Charitable giving emerged as a consistent behavior among participants, with 82% regularly contributing to religious or community causes. This aligns with cultural and religious norms that emphasize the importance of zakat and sadaqah (Mevlyutov & Gamzatov, 2023; Naisabur et al., 2023; Nesturov, 2022). As Wahyuningtyas et al. (2022) note, such practices reflect the integration of spiritual and financial responsibilities, reinforcing social cohesion and ethical financial behavior.

Regional Influences on Financial Behavior

The comparative analysis revealed clear regional differences in financial behavior. Urban participants benefited from greater access to financial institutions, higher financial literacy, and exposure to formal financial products. In contrast, rural participants faced significant barriers, including limited access to resources and reliance on informal systems. These findings highlight the importance of tailoring interventions to regional contexts for finance, as suggested by previous studies (Dabla-Norris et al., 2015; Elouaourti & Ezzahid, 2024; Nugraha et al., 2018; Yun, 2023).

Implications for Policy and Practice

The findings of this study have several implications for policymakers, financial institutions, and community organizations.

1. Promoting Financial Literacy:
   Targeted financial education programs are essential for addressing the knowledge gaps identified in this study. These programs should emphasize

budgeting, retirement planning, and investment strategies, with a focus on the unique challenges faced by the sandwich generation.

2. Expanding Access to Financial Products:
   Financial institutions should prioritize the development of accessible and culturally resonant products, such as takaful and halal investment options. Expanding outreach efforts to rural areas and simplifying processes can improve trust and uptake among participants.
3. Addressing Regional Disparities:
   Regional differences in financial behavior highlight the need for localized interventions. Policymakers should ensure equitable access to financial resources, including banking and insurance services, in rural areas. Community-based initiatives, such as mobile banking units and financial literacy workshops, could bridge the gap.
4. Empowering Women:
   Given the dual roles of women in the sandwich generation, interventions should focus on empowering them with the tools and resources needed to achieve financial stability. This includes promoting workforce participation, providing childcare support, and offering training programs that enhance financial independence.

CONCLUSION

This study provides a comprehensive analysis of the financial behaviors of women in the sandwich generation in Sleman District, Indonesia, highlighting key strengths, challenges, and contextual influences. The findings reveal a commendable sense of financial responsibility among participants, as demonstrated by their prioritization of debt repayment and charitable giving. However, significant gaps persist in areas such as retirement planning, emergency savings, and investment practices. Urban participants generally exhibited stronger financial behaviors, including consistent budgeting and greater engagement with formal financial products, while rural participants faced barriers related to access and financial literacy.

The study contributes to the existing literature by integrating regional and gendered perspectives into the analysis of financial behavior, providing insights into the unique challenges faced by women balancing intergenerational caregiving and economic responsibilities. Its findings have practical implications for policymakers and financial institutions, particularly in addressing regional disparities and promoting culturally resonant financial literacy programs. By empowering women with knowledge and resources, this research underscores the potential to improve financial resilience and reduce intergenerational dependency.

The study's significance lies in its focus on a vulnerable yet underexplored demographic, offering actionable recommendations for targeted interventions. Future research should build on these insights to explore the longitudinal effects of financial education and the role of cultural norms in shaping financial decisions.

Limitations of the Study

While this study offers valuable insights into the financial behaviors of women in the sandwich generation, certain limitations must be acknowledged. The use of convenience sampling may limit the generalizability of findings to the broader population. Participants were selected based on accessibility and willingness to participate, potentially excluding individuals with differing financial behaviors or circumstances. Additionally, the study relied heavily on self-reported data, which may be subject to response bias as participants might have presented socially desirable answers.

Another limitation is the study's cross-sectional design, which captures financial behaviors at a single point in time. This approach does not account for temporal variations or the long-term impacts of financial decisions. The analysis also primarily focused on regional and socio-economic factors, without delving deeply into the psychological or cultural influences that shape financial behavior. These elements, though indirectly observed, warrant a more detailed investigation.

Finally, while the study addresses financial behaviors within the context of Islamic principles, it does not comprehensively analyze the extent to which these principles influence decision-making. Future studies could explore the intersection of religious values and financial practices in greater depth. Despite these limitations, the study provides a robust foundation for understanding and addressing the financial challenges faced by this demographic.

Recommendations for Future Research

Future research should address the limitations of this study by employing larger, more representative samples to enhance generalizability. Stratified random sampling could ensure greater inclusivity, capturing the diversity of financial behaviors across different socio-economic and cultural contexts. Longitudinal studies would be particularly valuable in examining how financial behaviors evolve over time and in response to interventions such as financial literacy programs or policy changes.

Additionally, future studies should explore the psychological and cultural dimensions of financial decision-making, including the role of gender norms, familial expectations, and emotional factors. Investigating these elements would provide a deeper understanding of the barriers and motivations that shape financial behavior among women in the sandwich generation.

Further research could also examine the effectiveness of specific financial literacy programs tailored to the needs of urban and rural populations. Comparative analyses of various approaches—such as workshops, digital tools, or community-based initiatives—would help identify best practices for promoting financial resilience.

Lastly, a focus on the integration of Islamic financial principles with modern financial products could yield insights into how culturally resonant strategies can enhance financial inclusion. By addressing these areas, future research can build on the findings of this study, offering more nuanced and actionable solutions for improving financial well-being in similar contexts.

Author Contributions

Conceptualization	H.A. & S.S.	Resources	H.A. & S.S.
Data curation	H.A. & S.S.	Software	H.A. & S.S.
Formal analysis	H.A. & S.S.	Supervision	H.A. & S.S.
Funding acquisition	H.A. & S.S.	Validation	H.A. & S.S.
Investigation	H.A. & S.S.	Visualization	H.A. & S.S.
Methodology	H.A. & S.S.	Writing – original draft	H.A. & S.S.
Project administration	H.A. & S.S.	Writing – review & editing	H.A. & S.S.

All authors have read and agreed to the published version of the manuscript.

Funding

This study received no direct funding from any institution.

Institutional Review Board Statement

The study was approved by Program Studi Ekonomi Islam (S1), Universitas Islam Indonesia, Yogyakarta, Indonesia.

Informed Consent Statement

Informed consent was obtained before the respondents answered the interview.

Data Availability Statement

The data presented in this study are available from the corresponding author upon reasonable request.

Acknowledgments

The authors thank Program Studi Ekonomi Islam (S1), Universitas Islam Indonesia, Yogyakarta, Indonesia, for administrative support for the research on which this article was based.

Conflicts of Interest

The authors declare no conflicts of interest.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work the authors used ChatGPT, DeepL, Grammarly, and PaperPal in order to translate from Bahasa Indonesia into American English, and to improve clarity of the language and readability of the article. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

REFERENCES

Abramson, T. A. (2015). Older adults: The “panini sandwich” generation. *Clinical Gerontologist*, *38*(4), 251–267. https://doi.org/10.1080/07317115.2015.1032466

Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., & Evanoff, D. D. (2015). Financial literacy and financial planning: Evidence from India. *Journal of Housing Economics*, *27*, 4–21. https://doi.org/10.1016/j.jhe.2015.02.003

Ahmad, R., Ali, Md. N., Said, R., Abu Bakar, M., Abdul Manan, F. N., & Albasri, S. H. (2022). Introduction to waqf –takaful compensation model: Adopting the maqasid Shariah concept for socio-economic development in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *12*(8), 1108–1122. https://doi.org/10.6007/IJARBSS/v12-i8/14680

Aji, W. T., & Harani, F. (2023). Global phenomenon: The Millennial Generation is trapped by sandwich generation in Indonesia. *International Journal of Educational and Psychological Sciences*, *1*(4), 269–274. https://doi.org/10.59890/ijeps.v1i4.864

Amir, M. F. (2021). Islamic financial literacy dan Islamic financial behaviour mahasiswa (Studi etnometodologi terhadap efektivitas pembelajaran manajemen keuangan Islam) [Islamic financial literacy and Islamic financial behavior of university students (An ethnomethodological study on the effectiveness of Islamic financial management learning)]. *Iqtishaduna*, *12*(2), 234–249. https://doi.org/10.20414/iqtishaduna.v12i2.4326

Anshika. (2017). Financial literacy-A present day need in India. *Jaipuria International Journal of Management Research*, *3*(1), 64. https://doi.org/10.22552/jijmr/2017/v3/i1/146088

Arini, F. D., Widaningrum, A., & Hadna, A. H. (2020). Poverty reduction and financial literacy for women in Indonesia. *Proceedings of the Annual Conference of Indonesian Association for Public Administration (IAPA 2019)*, 241–258. https://doi.org/10.2991/aebmr.k.200301.013

Augustin, L. A. V., & Martin, T. K. (2022). Financial literacy and the level of financial planning individuals use. *Financial Services Review*, *30*(3), Article 3. https://doi.org/10.61190/fsr.v30i3.3486

Ayomi, P. M. (2023). Utilization of online resources by the undergraduates at the Institute of Indigenous Medicine: An online user survey. *Sri Lanka Library Review*, *37*(2), 37–53. https://doi.org/10.4038/sllr.v37i2.63

Bird, C. L., Şener, A., & Coşkuner, S. (2014). Visualizing financial success: Planning is key. *International Journal of Consumer Studies*, *38*(6), 684–691. https://doi.org/10.1111/ijcs.12141

Bogan, V. L. (2015). Household asset allocation, offspring education, and the sandwich generation. *American Economic Review*, *105*(5), 611–615. https://doi.org/10.1257/aer.p20151115

Brailey, C. D., & Slatton, B. C. (2019). Women, work, and inequality in the U.S.: Revising the second shift. *Journal of Sociology and Social Work*, *7*(1), 29–35. https://doi.org/10.15640/jssw.v7n1a4

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Crossan, D., Feslier, D., & Hurnard, R. (2011). Financial literacy and retirement planning in New Zealand. *Journal of Pension Economics & Finance*, *10*(4), 619–635. https://doi.org/10.1017/S1474747211000515

Dabla-Norris, E., Deng, Y., Ivanova, A., Karpowicz, I., Unsal, D. F., VanLeemput, E., & Wong, J. (2015). Financial inclusion: Zooming in on Latin America. *IMF Working Papers*, *15*(206). https://doi.org/10.5089/9781513568928.001

DeRigne, L., & Ferrante, S. (2012). The sandwich generation: A review of the literature. *Florida Public Health Review*, *9*(1), Article 12. https://digitalcommons.unf.edu/fphr/vol9/iss1/12

Dewi, S. K. S., & Wiksuana, I. G. B. (2022). The factors analysis of financial conditions of working women sandwich generation. *Signifikan: Jurnal Ilmu Ekonomi*, *11*(2), 299–318. https://doi.org/10.15408/sjie.v11i2.25635

Do, E. K., Cohen, S. A., & Brown, M. J. (2014). Socioeconomic and demographic factors modify the association between informal caregiving and health in the Sandwich Generation. *BMC Public Health*, *14*(1), Article Number 362. https://doi.org/10.1186/1471-2458-14-362

Dobson, J. E., & Dobson, R. L. (1985). The sandwich generation: Dealing with aging parents. *Journal of Counseling & Development*, *63*(9), 572–574. https://doi.org/10.1002/j.1556-6676.1985.tb00684.x

Elouaourti, Z., & Ezzahid, E. (2024). Factors of regional financial inclusion in Morocco. *Regional Science Policy & Practice*, *16*(3), 12516. https://doi.org/10.1111/rsp3.12516

Evans, K. L., Millsteed, J., Richmond, J. E., Falkmer, M., Falkmer, T., & Girdler, S. J. (2016). Working sandwich generation women utilize strategies within and between roles to achieve role balance. *PLOS ONE*, *11*(6), e0157469. https://doi.org/10.1371/journal.pone.0157469

Fang, M. (2024). The impact of financial literacy on household financial asset allocation. *Financial Engineering and Risk Management*, *7*(4), 144–148. https://doi.org/10.23977/ferm.2024.070418

Friedemann, M.-L., & Buckwalter, K. C. (2014). Family caregiver role and burden related to gender and family relationships. *Journal of Family Nursing*, *20*(3), 313–336. https://doi.org/10.1177/1074840714532715

Friedline, T., & West, S. (2016). Financial education is not enough: Millennials may need financial capability to demonstrate healthier financial behaviors. *Journal of Family and Economic Issues*, *37*(4), 649–671. https://doi.org/10.1007/s10834-015-9475-y

Gitman, L. J., & Zutter, C. J. (2011). *Principles of managerial finance* (13th Edition). Pearson College Division.

Gonçalves, V. N., Ponchio, M. C., & Basílio, R. G. (2021). Women's financial well-being: A systematic literature review and directions for future research. *International Journal of Consumer Studies*, *45*(4), 824–843. https://doi.org/10.1111/ijcs.12673

Grundy, E., & Henretta, J. C. (2006). Between elderly parents and adult children: A new look at the intergenerational care provided by the 'sandwich generation.' *Ageing and Society*, *26*(5), 707–722. https://doi.org/10.1017/S0144686X06004934

Hämäläinen, H., & Tanskanen, A. O. (2021). 'Sandwich generation': Generational transfers towards adult children and elderly parents. *Journal of Family Studies*, *27*(3), 336–355. https://doi.org/10.1080/13229400.2019.1586562

Hammer, L. B., & Neal, M. B. (2008). Working sandwiched-generation caregivers: Prevalence, characteristics, and outcomes. *The Psychologist-Manager Journal*, *11*(1), 93–112. https://doi.org/10.1080/10887150801967324

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, *July*, 309–322. https://ideas.repec.org//a/fip/fedgrb/y2003ijulp309-322nv.89no.7.html

Irawaty, D. K., & Gayatri, M. (2023). Sensing the squeeze of sandwich generation women in Jakarta, Indonesia. *Journal of Family Sciences*, *8*(1), 52–69. https://doi.org/10.29244/jfs.v8i1.43942

Khasanah, N., Widyastuti, U., & Fawaiq, M. (2023). Kepuasan keuangan pada generasi sandwich dan implikasinya terhadap perilaku mengelola keuangan [Financial satisfaction in the sandwich generation and its implications for financial management behavior]. *Jurnal Bisnis, Manajemen, Dan Keuangan*, *4*(1), 260–276. https://doi.org/10.21009/jbmk.0401.19

Kusdiana, Y., & Safrizal, S. (2022). Faktor-faktor yang mempengaruhi perencanaan keuangan keluarga [Factors that influence family financial planning]. *JAS (Jurnal Akuntansi Syariah)*, *6*(1), 127–139. https://doi.org/10.46367/jas.v6i1.580

Kusumaningrum, F. A. (2023). The meaning of verses on parents-children relationship as basis for sandwich generation concept in Islam. *Millah*: *Journal of Religious Studies*, *22*(2), 553–582. https://doi.org/10.20885/millah.vol22.iss2.art10

Larisa, L. E., Njo, A., & Wijaya, S. (2021). Female workers' readiness for retirement planning: An evidence from Indonesia. *Review of Behavioral Finance*, *13*(5), 566–583. https://doi.org/10.1108/RBF-04-2020-0079

Lee, Y., & Tang, F. (2015). More caregiving, less working: Caregiving roles and gender difference. *Journal of Applied Gerontology*, *34*(4), 465–483. https://doi.org/10.1177/0733464813508649

Lee, Y., Tang, F., Kim, K. H., & Albert, S. M. (2015). The vicious cycle of parental caregiving and financial well-being: A longitudinal study of women. *The Journals of Gerontology Series B*: *Psychological Sciences and Social Sciences*, *70*(3), 425–431. https://doi.org/10.1093/geronb/gbu001

Lekpek, A., & Ibrović, S. (2021). Takaful insurance in theory and practice. *Bankarstvo*, *50*(1), 108–133. https://doi.org/10.5937/bankarstvo2101108L

Lena, S. S., & Syarofi, M. (2022). Penetapan margin dan nisbah bagi hasil pada pembiayaan mudharabah di bank syariah indonesia [Determination of margin and profit sharing ratio in mudharabah financing in Indonesian Islamic banks]. *Jurnal Ekonomi Dan Bisnis Islam (JEBI)*, *2*(2), 153–162. https://doi.org/10.56013/jebi.v2i2.1529

Leviastuti, A., Santika, T. D., & Prasetyo, I. (2023). Financial literacy education for women: A novel approach based on social media platform. *Journal of Social Entrepreneurship Theory and Practice*, *2*(1), 42–54. https://doi.org/10.31098/jsetp.v2i1.991

Lichard, T., Pertold, F., & Škoda, S. (2021). Do women face a glass ceiling at home? The division of household labor among dual-earner couples. *Review of Economics of the Household*, *19*(4), 1209–1243. https://doi.org/10.1007/s11150-021-09558-7

Liu, Y., Wang, W., Cong, Z., & Chen, Z. (2022). Effect of older adults in the family on the sandwich generation's pursuit of entrepreneurship: Evidence from China. *Ageing and Society*, *42*(2), 331–350. https://doi.org/10.1017/S0144686X21001033

Lone, U. M., & Bhat, S. A. (2024). Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal of Financial Services Marketing*, *29*(1), 122–137. https://doi.org/10.1057/s41264-022-00183-8

Lusardi, A. (2015). Financial literacy: Do people know the *ABCs* of finance? *Public Understanding of Science*, *24*(3), 260–271. https://doi.org/10.1177/0963662514564516

Mahmood, S., Shuhui, W., Aslam, S., & Ahmed, T. (2022). The financial inclusion development and its impacts on disposable income. *Sage Open*, *12*(2), 21582440221093369. https://doi.org/10.1177/21582440221093369

Marsella, M., & Nurzaman, M. S. (2023). Pemikiran ekonomi Imam Ibnu Taimiyyah menguak pemikiran ekonomi muslim klasik [Imam Ibn Taymiyyah's economic thought reveals classical Muslim economic thought]. *Al-Kharaj*: *Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *5*(5), 2572–2584. https://doi.org/10.47467/alkharaj.v5i5.3542

Masterson, C. R., & Hoobler, J. M. (2015). Care and career: A family identity-based typology of dual-earner couples. *Journal of Organizational Behavior*, *36*(1), 75–93. https://doi.org/10.1002/job.1945

Mevlyutov, A. Sh., & Gamzatov, A. A. (2023). The problem of social responsibility in Islam. *Minbar. Islamic Studies*, *16*(1), 117–125. https://doi.org/10.31162/2618-9569-2023-16-1-117-125

Miller, D. A. (1981). The "sandwich" generation: Adult children of the aging. *Social Work*, *26*(5), 419–423. https://www.jstor.org/stable/23712207

Mitlin, D., Colenbrander, S., & Satterthwaite, D. (2018). Editorial: Finance for community-led local, city and national development. *Environment and Urbanization*, *30*(1), 3–14. https://doi.org/10.1177/0956247818758251

Monica, P. (2024, May 22). *Data: Tingkat partisipasi angkatan kerja perempuan di Indonesia 2020-2024 [Data: Female labor force participation rate in Indonesia 2020-2024]* [HTML]. Inilah.Com. https://www.inilah.com/tingkat-partisipasi-angkatan-kerja-perempuan

Mowpia. (2023). Work-life balance: Addressing opportunities and challenges for women. *International Journal for Research in Applied Science and Engineering Technology*, *11*(7), 295–301. https://doi.org/10.22214/ijraset.2023.54631

Mthembu, A. V., Kolanisi, U., Qumbisa, N. D., & Kheswa, T. P. (2022). Indigenising informal financial mechanism (IFM) of rural women in the northern region of Kwazulu-Natal, South Africa. *African Journal of Gender, Society and Development (Formerly Journal of Gender, Information and Development in Africa)*, *11*(3), 125–144. https://doi.org/10.31920/2634-3622/2022/v11n3a6

Mustafa, W. M. W., Islam, Md. A., Asyraf, M., Hassan, Md. S., Royhan, P., & Rahman, S. (2023). The effects of financial attitudes, financial literacy and health literacy on sustainable financial retirement planning: The moderating role of the financial advisor. *Sustainability*, *15*(3), 2677. https://doi.org/10.3390/su15032677

Naisabur, N., Putra, H. M., Naisabur, C. A. P., Farid, D., & Ahyani, H. (2023). Islamic philanthropy fiqh in modern context. *Al-Muamalat: Jurnal Ekonomi Syariah*, *10*(1), 24–35. https://doi.org/10.15575/am.v10i1.21068

Nawi, F. A. M., Aziz, M. R. A., & Shahwan, S. (2022). Conceptualizing the influence of religiosity and Islamic financial knowledge on Islamic financial behaviours. *International Journal of Academic Research in Business and Social Sciences*, *12*(11), 2640–2659. https://doi.org/10.6007/IJARBSS/v12-i11/15262

Nesturov, S. P. (2022). Zakat as a way to overcome poverty in Muslim society. *Issues of Theology*, *4*(2), 233–240. https://doi.org/10.21638/spbu28.2022.204

Noor, S., & Isa, F. M. (2020). Malaysian sandwich generation issues and challenges in elderly parents care. *International and Multidisciplinary Journal of Social Sciences*, *9*(3), 289–312. https://doi.org/10.17583/rimcis.2020.5277

Noviarini, J., Coleman, A., Roberts, H., & Whiting, R. H. (2021). Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand. *Pacific-Basin Finance Journal*, *68*, 101598. https://doi.org/10.1016/j.pacfin.2021.101598

Nugraha, M. F., Sulasman, S., & Supendi, U. (2018). Tradisi keagamaan masyarakat Kota Bandung di bulan Ramadan tahun 1990-2000 [Religious traditions of the people of Bandung in the month of Ramadan, 1990-2000]. *Historia Madania: Jurnal Ilmu Sejarah*, *2*(2), 75–90. https://doi.org/10.15575/hm.v2i2.9158

Oktaviani, R. F., Meidiyustiani, R., Imelda, Hidayat, R. S., Niazi, H. A., & Lestari, I. R. (2022). Implementasi aplikasi tabungan ibu di Posbindu Pesanggrahan, Jakarta Selatan [Implementation of maternal savings application in Posbindu Pesanggrahan, South Jakarta]. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, *6*(5), 1297–1303. https://doi.org/10.31849/dinamisia.v6i5.11271

O'Sullivan, A. (2015). Pulled from all sides: The sandwich generation at work. *Work*, *50*(3), 491–494. https://doi.org/10.3233/WOR-141959

Padmaja, M., & Rajakumar, C. S. (2022). Women's participation in family finance management. *Journal of Pharmaceutical Negative Results*, *13*(Special Issue 8), 3131–3136. https://doi.org/10.47750/pnr.2022.13.S08.388

Pak, C. (2024). Marketing to the sandwich generation: Meeting the needs of all family members. *Journal of Business Strategy*, *45*(4), 221–229. https://doi.org/10.1108/JBS-02-2023-0027

Pashazade, H., Maarefvand, M., Abolfathi Momtaz, Y., & Abdi, K. (2024). Coping strategies of the sandwich generation in the care process: A qualitative study. *BMC Public Health*, *24*(1), 3373. https://doi.org/10.1186/s12889-024-20327-w

Perry, V. G., & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of Consumer Affairs*, *39*(2), 299–313. https://doi.org/10.1111/j.1745-6606.2005.00016.x

Putri, J. A., Johan, I. R., & Yuliati, L. N. (2024). Analysis of husband-wife interaction, financial vulnerability, and objective well-being in sandwich generation families. *International Journal of Economics (IJEC)*, *3*(2), 1061–1073. https://doi.org/10.55299/ijec.v3i2.975

Rahmah, S. (2014). Pola pengelolaan keuangan keluarga pada ibu rumah tangga (Studi pada ibu rumah tangga yang bekerja sebagai cleaning service di UIN Sultan Syarif Kasim Riau) [Family financial management patterns in housewives (Study on housewives who work as cleaning service at UIN Sultan Syarif Kasim Riau)]. *Marwah: Jurnal Perempuan, Agama dan Jender*, *13*(1), 132–152. https://doi.org/10.24014/marwah.v13i1.885

Rahman, M., Isa, C. R., Masud, M. M., Sarker, M., & Chowdhury, N. T. (2021). The role of financial behaviour, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Future Business Journal*, *7*(1), 52. https://doi.org/10.1186/s43093-021-00099-0

Ramadhani, N. (2016). Implikasi peran ganda perempuan dalam kehidupan keluarga dan lingkungan masyarakat [The implications of women’s dual roles in family life and the community environment]. *Sosietas: Jurnal Pendidikan Sosiologi*, *6*(2), Article 2. https://doi.org/10.17509/sosietas.v6i2.4245

Rifas, A. H., Rahman, A. A., & Buang, A. H. (2023). Appraising the Universal Concepts of Insurance and Takaful: Similarities and Differences. *UMRAN - International Journal of Islamic and Civilizational Studies*, *10*(1), 1–15. https://doi.org/10.11113/umran2023.10n1.571

Riley, L. D., & Bowen, C. “Pokey.” (2005). The sandwich generation: Challenges and coping strategies of multigenerational families. *The Family Journal*, *13*(1), 52–58. https://doi.org/10.1177/1066480704270099

Rita, M. R., Nugrahanti, Y. W., & Nastiti, P. K. Y. (2024). The sources and effects of retirement planning: An empirical study of sandwich-generation employees in Indonesia. *Media Ekonomi Dan Manajemen*, *39*(2), 317. https://doi.org/10.56444/mem.v39i2.4878

Samsidar, S. (2020). Peran ganda wanita dalam rumah tangga [Women’s multiple roles in the household]. *An-Nisa*, *12*(2), 655–663. https://doi.org/10.30863/an.v12i2.663

Sánchez Santos, J. M. (2020). The economic and social value of financial literacy: In B. Álvarez-García & J.-P. Abeal-Vázquez (Eds.), *Advances in finance, accounting, and economics* (pp. 199–226). IGI Global. https://doi.org/10.4018/978-1-7998-2440-4.ch009

Shi, J., Zhang, D., & Liu, X. (2024). Intergenerational caregiving patterns and cognitive health among the sandwich generation within four-generation families. *The International Journal of Aging and Human Development*, *99*(3), 307–337. https://doi.org/10.1177/00914150241235088

Steiner, A. M., & Fletcher, P. C. (2017). Sandwich generation caregiving: A complex and dynamic role. *Journal of Adult Development*, *24*(2), 133–143. https://doi.org/10.1007/s10804-016-9252-7

Suarna, I. F., Nugraha, & Sari, M. (2021). Perilaku keuangan ibu rumah tangga pengguna e-wallet OVO di Kecamatan Kedawung Cirebon [Financial behavior of housewives who use OVO e-wallet in Kedawung Cirebon District]. *JIMU (Jurnal Ilmiah Manajemen Ubhara)*, *3*(2), 40–51. https://doi.org/10.31599/jmu.v3i2.977

Suharli, S., Wahab, A., & Hamid Habbe, A. (2022). Application of Islamic economic principles in realizing management banking without interest. *Dinasti International Journal of Education Management And Social Science*, *3*(2), 277–288. https://doi.org/10.31933/dijemss.v3i2.1071

Supriatna, A., Islamy, M. R. F., Komariah, K. S., Parhan, M., & Nur Fitria, A. H. (2022). Explaining sandwich generation phenomena in the modernity dimension. *Jurnal Studi Sosial Dan Politik*, *6*(1), 101–111. https://doi.org/10.19109/jssp.v6i1.11547

Suryanto, S. (2017). Pola perilaku keuangan mahasiswa di perguruan tinggi [Financial behavior patterns of students in higher education]. *Jurnal Ilmu Politik Dan Komunikasi*, *7*(1), 11–20. https://doi.org/10.34010/jipsi.v7i1.328

Synowiec-Piłat, M., Jędrzejek, M., & Zmyślona, B. (2022). Differences in leisure time across middle-generation adults in Wroclaw, Poland: Examining the usefulness of the “sandwich generation” category. *Family Relations*, *71*(4), 1747–1761. https://doi.org/10.1111/fare.12676

Syufa’at, S., Zaidi, S. M. S., & Mutholaah, M. (2023). Sandwich generation in contemporary Indonesia: Determining responsibility in caring for elderly under Islamic law and positive law. *Al-Manahij: Jurnal Kajian Hukum Islam*, *17*(2), 167–182. https://doi.org/10.24090/mnh.v17i2.9371

Terkoğlu, Ö. İ., & Memiş, E. (2022). Impact of elderly care on “sandwiched-generation” women in Turkey. *New Perspectives on Turkey*, *66*, 88–121. https://doi.org/10.1017/npt.2022.12

Thakker, K. (2023). Trends, practices and outcomes of present positioning of financial planning and its future directions. *Journal of Management Research and Analysis*, *10*(1), 45–49. https://doi.org/10.18231/j.jmra.2023.008

Vishwas A., Kumari, D., Pradeep S., Shohan, S., Suresh, N., Nair, D., & Chinnasamy, Dr. G. (2022). Mechanics of finance- personal finance advisory firm: “Finance friend.” *International Journal for Research in Applied Science and Engineering Technology*, *10*(12), 1985–1986. https://doi.org/10.22214/ijraset.2022.48396

Wahyuningtyas, E. T., Susesti, D. A., Hariasih, M., Nabila, R. F. H., & Yolanda, N. (2022). Perencanaan keuangan rumah tangga Islami [Islamic household financial planning]. *Swarna: Jurnal Pengabdian Kepada Masyarakat*, *1*(4), 397–403. https://doi.org/10.55681/swarna.v1i4.162

Xu, J., Sun, M., & Wang, H. (2021). Inclusive financing’s development and urban-rural income gap—Empirical analysis based on provincial panel data. *E3S Web of Conferences*, *275*, 03015. https://doi.org/10.1051/e3sconf/202127503015

Yeni, F., Mulyani, S. R., & Susriyanti, S. (2023). Islamic financial literacy, spiritual intelligence, public perception and behaviour on public interest in Islamic banking services. *Cogent Economics & Finance*, *11*(1), 2175470. https://doi.org/10.1080/23322039.2023.2175470

Yun, S.-Y. (2023). A study on regional characteristics of financial cooperatives’ management efficiency and financial inclusion. *The Korean Academic Association of Business Administration*, *36*(1), 117–135. https://doi.org/10.18032/kaaba.2023.36.1.117

This page intentionally left blank.