Systematic Review

THE RELATIONSHIP BETWEEN PERSONAL DEBT AND MENTAL HEALTH AMONG SOLE PROPRIETORS OF MICRO, SMALL, AND MEDIUM ENTERPRISES

ABSTRACT

This study examines the relationship between personal debt and mental health among sole proprietors of micro, small, and medium-sized enterprises (MSMEs) in Cateel, Davao Oriental. Utilizing a quantitative descriptive-correlational design, data were gathered from sole proprietors registered under 163 DTI through adapted survey questionnaires. The research focused on three dimensions of personal debt—self-control, overconfidence, and peer influence—and three aspects of mental health—resilience, social support, and stress levels. Results indicate that respondents demonstrated a high prevalence of debt-related behavior alongside generally positive mental health outcomes. Notably, there was a significant relationship identified between personal debt and health. Specifically, overconfidence and peer influence were found to have moderate correlations with mental health, while an overall debt level exhibited a strong positive correlation (r = 0.786) with mental health. These findings underscore the crucial role of financial literacy and psychological resilience in fostering the well-being of local entrepreneurs, indicating that targeted interventions could improve both financial management and mental health support within this community.

Keywords: Personal debt, mental health, sole proprietors, MSMEs, self-control, overconfidence, peer influence, resilience, social support, financial stress, financial behavior, debt management, psychological well-being.

1. INTRODUCTION

Debt is associated with various physical health issues, including inflammation, high blood pressure, and a high body mass index (Achtziger, 2022; Sweet et al., 2018; Zhang & Kim, 2019). Financial strain, defined as an individual's subjective experience of their financial situation, is associated with psychological distress and mental illness (Frank et al., 2014; Holmgren et al., 2019; Stein et al., 2013; Sweet et al., 2018; Zhang & Kim, 2019). Interestingly, the size of the debt does not necessarily determine the level of financial strain; even those with smaller debts can experience significant stress (Holmgren et al., 2019).

In Sweden, a report by Skandia Bank (Cision, 2022) found that 48% of respondents felt stressed about their finances, and 50% reported increased worry compared to the previous year. According to the Swedish Financial Supervisory Authority (2020), nearly 10% of individuals who take out new loans for private consumption face payment difficulties within five months. Failure to repay these loans can lead to a record of nonpayment and subsequent debt collection efforts. To address these issues, various countries have launched initiatives to provide financial assistance, mental health support, and entrepreneurship training (Kelley et al., 2021).

In the Philippines, as reported by the Inquirer (2021), 70% of Filipinos are in debt, making the country the most financially stressed in the Asia-Pacific region. This high level of debt increases anxiety and uncertainty about financial stability, leading to stress and other mental health problems Dumlao-Abadilla (2021). Individuals play crucial roles in meeting their family's daily needs, yet many face significant challenges, especially among young and low-income groups, leading to a common reliance on debt (Amit et al., 2020). Borrowing, often a necessary strategy to bridge resource gaps, provides temporary relief but also introduces stress from repayment and potential long-term financial instability. Mention by (Azul et al., 2023), failure to address the financial issue can take a toll on your mental health, leading to increased stress and other strains. By addressing these issues, lenders should provide innovative solutions for financial management and mental health support (Lusardi et al., 2016). The increase in short-term loans further underscores the need to address over-indebtedness as a public health priority.

Despite numerous studies on debt and financial stress, there is a lack of detailed information about the financial challenges faced by sole proprietors in Cateel, Davao Oriental. Most research examines broader economic trends and focuses on Western countries, overlooking the unique factors affecting people in this region. With the presented data, better financial education and debt management can break the cycle of financial trouble, improving both the economy and mental health and ultimately enhancing overall well-being. By providing specific data on the personal debt and mental health of sole proprietors in the selected research locale, this study can guide the development of effective support programs and policies tailored to their needs, ultimately enhancing their financial stability and quality of life.

2. THEORETICAL PERSPECTIVES

To investigate the influence of personal debt and mental health on sole proprietors in Cateel, Davao Oriental, this study adopts the Social Determinants of Health (SDOH) framework developed by Solar and Irwin (2010) and later endorsed by the World Health Organization’s Commission on Social Determinants of Health (SDOH).

Social Determinants of Health (SDOH). This framework categorizes the various social determinants of health and illustrates how these factors influence health outcomes. Moreover, it provides guidance on which policy interventions should be prioritized to address health challenges in a more focused and efficient manner. The SDOH framework offers valuable insights into the intricate interplay between individual, social, and structural factors that impact health. Among the key determinants of health within this framework, factors such as economic conditions, particularly personal debt, play a crucial role in influencing mental well-being.

By contextualizing personal debt and mental health within the SDOH framework, this study aims to provide a comprehensive understanding of how personal debt impacts mental health outcomes among sole proprietors. This approach will also inform targeted interventions designed to promote mental well-being within this group.

Self-Control

Self-control plays a crucial role in mental well-being, as it enables individuals to regulate their emotions, impulses, and actions, particularly during stressful times (Mark et al., 2018). Having strong self-control is linked to lower susceptibility to mental health challenges like anxiety and depression, as it helps individuals navigate stress without losing emotional balance (He et al.,2016). Research suggests that self-control serves as a protective shield against harmful behaviors and fosters psychological resilience when facing challenging circumstances (Good et al., 2016).

Self-control can help individuals manage stress-related challenges more effectively, further promoting mental health stability (Afek et al., 2015). Maintaining self-control acts as both a preventive and corrective tool for mental health, as it enables individuals to cultivate healthier responses to adversity. When integrated with other psychological resources, such as resilience and optimism, self-co tool becomes part of a broader framework for mental well-being (Wu et al., 2017).

In addition, the ability to control oneself plays a key role in promoting healthy ways to deal with challenges, contributing to lasting mental wellness benefits. People with strong self-discipline tend to employ forward-thinking methods, such as strategizing and resolving issues, which effectively lower stress levels and enhance their overall well-being. Studies indicate that enhancing self-restraint is vital in addressing mental well-being concerns since it enables individuals to manage emotional reactions and impulsive behaviors that could potentially result in mental health issues (Miles et al., 2016).

Overconfidence

In a study by Krueger and Heck (2021) and Moore (2016), the discussion revolves around the impact of overconfidence on mental health, highlighting its dual nature in affecting well-being. The concept of overconfidence, as illuminated by the Dunning-Kruger Effect, often prompts individuals to overestimate their capabilities, leading them to undertake tasks or make choices without fully considering the potential consequences. (Vitanova,2019).

Additionally, an excess of self-control can hinder individuals from seeking assistance, especially in matters related to their well-being. Suppose individuals are convinced that they grasp their physical or mental condition better than professionals do. In that case, they might steer clear of seeking guidance from experts, resulting in setbacks in receiving a diagnosis and necessary care.

Peer-Influence

In personal health, the impact of peer influence underscores the significant role that social connections play in shaping health outcomes throughout one's life journey (Laursen et al., 2018). According to Bandura (2016) and Falk from NIH News (2018), peer influence, whether constructive or harmful, operates through various channels, including social modeling, behavioral reinforcement, and emotional support, as discussed by Berry et al. (2008) and Slavich & Irwin (2015). Encouraging interactions with peers is associated with adopting healthier habits and enhancing mental well-being. Conversely, negative peer pressure or conflicts can lead to stress, unhealthy practices, and mental wellness issues, as highlighted by Jimenez (2020) and Ford and Collins (2020).

Resilience

Resilience plays a significant role in mental health, especially under adverse circumstances (Wu et al., 2017). Resilience can be viewed as the capacity to adapt positively to stressors and bounce back from challenges, a characteristic influenced by personal, biological, and environmental factors (Afek et al.,2015). Resilience theory suggests that individuals with greater psychological resilience are better equipped to maintain mental health stability during stressful events (Afek et al.,2015).

In practical terms, resilience encompasses a blend of favorable mental attributes, such as hopefulness, self-belief, and emotional control—these improve an individual's capacity to handle and bounce back from pressure, essentially serving as a shield against deteriorations in mental well-being (Verly, 2015; Wu et al., 2018).

Social Support

Social Support examines how social networks and relationships can shield individuals from mental health challenges by offering emotional, informational, and practical support (Cohen & Wills, 2021). This theory posits that when individuals feel connected and supported by friends, family, or community, they are better equipped to manage stress and psychological distress (Dr. Geset, 2020). Social support can buffer against anxiety, depression, and other mental health issues by promoting a sense of belonging, self-worth, and coping resources.

In mental health, social support plays a crucial role in enhancing resilience. For example, social support can enhance coping mechanisms by providing encouragement and guidance during challenging times, thereby reducing the perceived severity of stressors and promoting mental well-being (Lakey & Cohen, 2016). The presence of supportive social networks also fosters positive self-image and self-efficacy, encouraging individuals to seek help and maintain mental health routines.

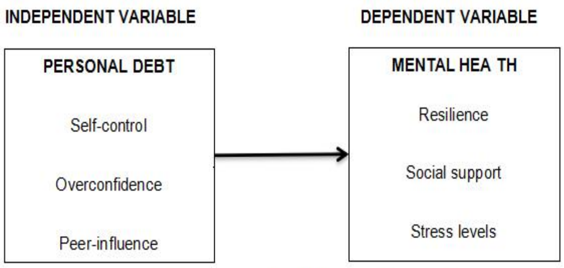

Figure 1. Conceptual Diagram of the Study

3. METHODOLOGY

The researchers employed a quantitative, descriptive-correlational research design to explore the relationship between personal debt and mental health among sole proprietors of micro and small enterprises (MSMEs).

The descriptive aspect will provide a detailed overview of personal debt and mental health, utilizing statistical measures such as mean distributions (Kothari, 2019). This will help in understanding the current state of these variables within the population.

In the study of Field (2017) and Sekaran (2016), the correlational aspect examined the strength and direction of the relationship between personal debt and mental health by calculating correlation coefficients, such as Pearson's.

This combined approach will enable researchers to describe the current status of personal debt and mental health among sole proprietors and determine whether there is a significant relationship between these variables, thereby offering insights into potential interventions or strategies to support sole proprietors in managing their debt and maintaining their mental well-being.

Meanwhile, the study assessed the relationship between personal debt and mental health among sole proprietors of micro, small, and medium enterprises (MSMEs) in Barangay Poblacion, Barangay Taytayan, Barangay Santa Filomena, and Barangay Mainit, Cateel, Davao Oriental. Conducted in May 2025, the study examined the impact of personal debt on the mental health of these entrepreneurs. Selecting four barangays provided diverse real-life contexts. Collaborating with local authorities facilitated access to valuable information, enhancing the study's relevance. This focus enabled researchers to gain a deeper understanding of the experiences of sole proprietors. The study aimed to provide insights into the financial and psychological well-being of sole proprietors in these barangays, contributing to the development of tailored support programs.

The researchers employed stratified random sampling to ensure a representative sample of Micro, Small, and Medium Enterprises (MSMEs) in four barangays: Barangay Poblacion, Barangay Taytayan, Barangay Santa Filomena, and Barangay Mainit, all in Cateel, Davao Oriental. According to Best and Khan (2016), random sampling allowed the researchers to select the intended population for the study. Additionally, as referenced by Thomas (2020), random sampling ensures that every person in a population has an equal chance of being chosen as a respondent. By stratifying the population based on characteristics such as business size or industry type, the aim is to gain a comprehensive understanding of financial literacy and entrepreneurial skills within the region's micro, small, and medium-sized enterprises (MSME) sector. Specifically, the study focuses on sole proprietors registered with the Department of Trade and Industry (DTI) as of 2024, ensuring the inclusion of legitimate businesses and thereby enhancing the validity of the findings. With 488 registered sole proprietors, stratified random sampling allows for the selection of a manageable yet representative sample, facilitating an efficient and statistically rigorous research process. The researchers selected 163 respondents who completed the survey, using calculator.net to achieve this sample size.

The researchers utilized four adapted survey questionnaire instruments, one of which was developed by Kariuki et al. (2016) and categorized into three areas: self-control, overconfidence, and peer influence, titled "The Relationship between Borrowing Behaviors and Indebtedness of Employees in the Formal Sector in Kenya."

Meanwhile, the second and third instruments are from the National Institute of Environmental Health Sciences (2013), focusing on resilience, under the title "Supplemental Mental Health." The fourth instrument, from Mansor et al. (2022), examines stress levels and is titled "Analyzing the Predictors of Financial Stress and Financial Well-Being among the Bottom 40 Percent (B40) Households in Malaysia." Lastly, a questionnaire developed by Gregori et al. (2016) to assess social support is known as the Multidimensional Scale of Perceived Social Support.

The questionnaires utilized in this study were carefully selected for their established relevance and validity in assessing the two primary variables of interest: personal debt and mental health. These instruments were specifically tailored to gather data from sole proprietors operating in the barangays of Poblacion, Taytayan, Santa Filomena, and Mainit, all located within the municipality of Cateel, Davao Oriental. These areas were chosen due to their active engagement in micro and small-scale entrepreneurial activities, which made them ideal for evaluating the financial and psychological challenges faced by local business owners.

To standardize responses and facilitate quantitative analysis, the survey adopted a Likert scale format, allowing participants to rate their level of agreement with each statement. The scale ranged from 1 to 5, where 1 indicated "Strongly Disagree," 2 indicated "Disagree," 3 indicated "Neutral," 4 indicated "Agree," and 5 indicated "Strongly Agree." This format enabled a nuanced understanding of participants' perspectives and provided measurable data on subjective experiences such as stress, resilience, and self-control.

The use of the Likert scale was particularly appropriate for this research as it is widely recognized for capturing the degree of agreement with attitudinal and behavioral statements, making it highly suitable for studies involving psychological and financial assessment.

In collecting data for the study on the relationship between personal debt and mental health among sole proprietors in Cateel, Davao Oriental, the researchers followed a systematic and ethical process. First, they sought ethical clearance by preparing and submitting a letter to the Research Ethics Committee at Davao Oriental State University to ensure adherence to ethical standards. Next, they provided informed consent forms to participants, clearly explaining the purpose of the study, participants' rights, and the confidentiality measures taken to protect their information. Upon receiving approval, the researchers distributed questionnaires to selected sole proprietors, emphasizing the voluntary nature of participation and the confidentiality of responses. Once the participants completed the questionnaires, the researchers retrieved them and submitted the data to a statistician for analysis. Finally, the data was encoded accurately and thoroughly analyzed to draw meaningful insights into the connection between personal debt and mental health.

The researchers employed several statistical tools to address the research questions in the study. First, the mean was calculated to assess the levels of personal debt and mental health among sole proprietors in Cateel. This measure provided an overview of general trends and helped answer the first two research questions related to the average levels of debt and mental health (Byran et al., 2020; Liv, 2021). To examine the relationship between the two variables, the researchers used the Pearson Correlation Coefficient, which allowed them to determine whether a statistically significant relationship existed between personal debt and mental health levels among respondents (Brown et al., 2020). Lastly, the Analysis of Variance (ANOVA) was applied to compare variations across different groups of sole proprietors. This statistical tool provided further insight into how debt and mental health levels differed among the participants (TK Kim, 2017).

4. FINDINGS

4.1 The Status of Personal Debt Among the Sole Proprietor

This section presents, interprets, and discusses the findings derived from the analysis of data concerning the state of personal debt among sole proprietors. The discussion is anchored in the independent variable of personal debt, examined through its key psychological and behavioral indicators: self-control, overconfidence, and peer influence. Additionally, this section examines the underlying factors that contribute to the personal indebtedness of individuals managing sole proprietorships.

4.1.1 The Status of Personal Debt Among the Sole Proprietors in Terms of Self Control

Table 1 presents the descriptive statistics for the state of personal debt among sole proprietors, focusing on the behavioral dimension of self-control. The sole proprietors in Cateel, Davao Oriental, exhibit a moderate level of self-control in their borrowing behavior, as indicated by an average mean score of 3.79 with a standard deviation of 0.74, interpreted as "High." Each of the individual statements likewise falls within the "High" range, reflecting cautious financial behaviors that also reveal some areas of vulnerability.
The highest-rated item, "Have obtained salary advances to bridge the salary deficit" (M = 3.97),

suggests that many sole proprietors rely on salary advances to meet their short-term financial needs. This pattern suggests that despite running their businesses, a substantial portion of the respondents experience irregular income or insufficient financial buffers, forcing them to rely on such borrowing to meet essential expenses. As noted by Afek et al. (2020), reliance on short-term debt mechanisms, such as salary advances, is a common behavior among individuals with low self-control, where immediate financial pressures take precedence over long-term stability.

Wu et al. (2018) further emphasized that limited planning and weak savings habits often drive such borrowing, especially when income unpredictability is high, as is often the case in small business operations.

this level, remains concerning. As Miles et al. (2016) noted, impulsive financial decisions are often driven by emotional responses to stress or temporary needs, leading to unplanned debt accumulation. Afek et al. (2020) similarly observed that individuals with lower self-control are particularly susceptible to emotional spending, especially under social or financial pressure.

While the lower score on impulsivity is a positive sign, it does not eliminate the risk. The combination of moderate impulsivity with a high reliance on salary advances suggests that sole proprietors may be caught between trying to maintain financial discipline and responding reactively to immediate financial shortfalls.

Overall, the data in Table 1 indicate that while sole proprietors in Cateel demonstrate a generally moderate level of self-control, there are clear areas of concern.

Table 1. Status of Personal Debt Among the Sole Proprietors in Terms of Self-Control

Statements	Mean	Std. Deviation	Interpretation
Impulsive in the manner in which they borrow and spend loans.	3.58	0.89	High
Sometimes borrow to balance personal budget (expenses and income).	3.75	0.81	High
Compares loan products among different lenders before making a final decision to borrow.	3.84	0.94	High
Have obtained salary advances to bridge the salary deficit.	3.97	0.95	High
Average	3.79	0.74	High

This dependence on salary advances also reflects an underlying issue of financial vulnerability. According to Miles et al. (2016), frequent reliance on mechanisms that advance future income can trap individuals in a debt cycle where each repayment creates further income deficits, ultimately increasing the likelihood of chronic financial stress and negative psychological outcomes. For sole proprietors, this cycle may be particularly challenging to escape, given the inherent uncertainty and variability in managing small enterprises.

In contrast, the lowest-rated item, "Impulsive in the manner in which they borrow and spend loans" (M = 3.58), though still interpreted as "High," suggests that impulsive borrowing is somewhat less prevalent compared to other aspects of debt behavior. This result indicates that many respondents exercise a degree of caution and deliberation when deciding to borrow. However, the presence of impulsivity, even at

The heavy reliance on salary advances highlights a significant vulnerability in financial planning and income stability, while the persistence of impulsive borrowing behaviors suggests the need for further interventions. As discussed in Chapter 2, improving self-control through financial education and behavioral training can help entrepreneurs reduce dependence on short-term debt and build more sustainable financial habits (Wu et al., 2018; Afek et al., 2020; Miles et al., 2016).

4.1.2 Status of Personal Debt Among the Sole Proprietors in Terms of Overconfidence

Table 2 presents the descriptive statistics for the state of personal debt among sole proprietors, focusing on the behavioral dimension of overconfidence. The sole proprietors in Cateel, Davao Oriental, exhibit a moderately high level of overconfidence in their borrowing behavior, as indicated by an average mean score of 3.98 with a standard deviation of 0.61, interpreted as "High."

Each of the individual statements likewise falls within the "High" range, reflecting a strong self-perception of competence in managing personal debt, though with potential underlying risks.

Overall, the data in Table 2 indicate that sole proprietors in Cateel generally possess high confidence in their ability to manage personal debt.

Table 2. Status of Personal Debt Among the Sole Proprietors in Terms of Overconfidence

Statements	Mean	Std. Deviation	Interpretation
When faced with a financial challenge, have hard time figuring out a solution.	3.74	0.82	High
Ability to manage loan finances is excellent.	4.07	0.77	High
Whenever making debt plans, they work as planned.	4.13	0.76	High
Average	**3.98**	**0.61**	High

The highest-rated item, "Whenever making debt plans, they work as planned" (M = 4.13), suggests that many sole proprietors feel highly confident that their debt-related strategies are effective and successful.

This perception of control aligns with the tendency of entrepreneurs to exhibit high self-efficacy in financial decision-making, as discussed by Krueger and Heck (2021), who noted that such confidence is often a characteristic of those in self-employed or leadership roles. This sense of control can be beneficial, as it fosters motivation and proactive financial behavior. However, as Moore (2015) cautioned, overconfidence can lead to a false sense of security, where individuals fail to adequately assess risks or adapt to changing financial conditions. When debt plans are executed without sufficient flexibility or contingency planning, entrepreneurs may be caught off guard by unexpected financial disruptions.

In contrast, the lowest-rated item, "When faced with a financial challenge, have a hard time figuring out a solution" (M = 3.74), though still interpreted as "High," reveals a potential gap between perceived competence and actual problem-solving ability. This finding suggests that while many respondents believe they manage debt effectively, they may still struggle when confronted with complex or unexpected financial problems. This inconsistency aligns with Vitanova's (2018) discussion of the Dunning-Kruger Effect, in which individuals with moderate knowledge may overestimate their abilities while lacking the necessary skills to navigate more complex situations. In the context of personal debt, such a gap can lead to poor decision-making under stress, thereby increasing the likelihood of debt mismanagement or emotional distress.

While this confidence can drive positive financial behaviors, the lowest-rated item suggests that strong problem-solving skills may not fully support it. As highlighted in Chapter 2, unchecked overconfidence can obscure the need for learning and adapting to financial challenges (Moore, 2017; Krueger & Heck, 2021; Vitanova, 2018). Therefore, fostering a more realistic self-assessment through financial education and reflective practices may help proprietors strike a balance between confidence and competence, leading to more resilient debt management.

4.1.3 Status of Personal Debt Among the Sole Proprietors in Terms of Peer Influence

Table 3 presents the descriptive statistics for the state of personal debt among sole proprietors, focusing on the behavioral dimension of peer influence. The sole proprietors in Cateel, Davao Oriental, exhibit a high level of peer influence in their borrowing behavior, as indicated by an average mean score of 3.97 with a standard deviation of 0.66, interpreted as "High." Each of the individual statements likewise falls within the "High" range, suggesting that peers significantly shape many respondents' financial decisions related to debt.

The highest-rated item, "Observe and discuss debt matters with peers before deciding to borrow" (M = 4.04), indicates that many sole proprietors actively consult friends or coworkers before making borrowing decisions. This behavior illustrates the significant influence of social learning and peer reinforcement on financial management. As discussed by Bandura (2019), peer interactions are a powerful source of behavioral modeling, where individuals observe and adopt behaviors they perceive as acceptable or beneficial within their social circles. In this context, peer consultation can serve as both a support mechanism and an influence on financial choices, particularly when formal financial advice is not easily accessible. However, relying heavily on peer discussions can also introduce bias or misinformation, especially if peers lack a sound understanding of financial knowledge.

Table 3. Status of personal debt among the sole proprietors in terms of peer influence

Statements	Mean	Std. Deviation	Interpretation
Observe and discuss debt matters with peers before deciding to borrow.	4.04	0.76	High
Select loan products recommended by friends and workmates	3.99	0.79	High
Have borrowed to acquire assets recommended or commonly owned by my friends and workmates.	3.87	0.92	High
Average	**3.97**	**0.66**	High

In contrast, the lowest-rated item, "Have borrowed to acquire assets recommended or commonly owned by my friends and workmates" (M = 3.87), while still interpreted as "High," suggests a slightly lower tendency to engage in borrowing driven purely by social comparison or material conformity. Nevertheless, the result still reflects the presence of social pressure on financial behavior.

According to Jimenez (2020), peer-driven consumption is a significant factor influencing borrowing decisions, particularly in environments where individuals seek to maintain social parity or status. Similarly, Ford and Collins (2000) noted that peer pressure can promote debt accumulation as individuals attempt to align their lifestyle with perceived social expectations, often at the expense of financial stability.
Overall, the data in Table 7 indicate that peer influence is a significant factor shaping the borrowing behaviors of sole proprietors in Cateel. While peer discussions can foster informed decision-making, they also risk encouraging borrowing motivated by social comparison or pressure rather than genuine financial need. As emphasized in Chapter 2, fostering independent financial judgment through targeted education can help mitigate the risks associated with peer-driven borrowing (Bandura, 2019; Jimenez, 2020; Ford & Collins, 2020).

4.1.4 Factors of Personal Debt

Table 4 presents the descriptive statistics for the factors of personal debt among sole proprietors, summarizing the behavioral dimensions of self-control, overconfidence, and peer influence. The overall mean score for personal debt is 3.91, with a standard deviation of 0.55, indicating a level interpreted as "High." All individual factors also fall within the "High" range, indicating that sole proprietors in Cateel, Davao Oriental, exhibit both positive and risk-prone behaviors in their borrowing practices

The highest-rated factor, overconfidence (M = 3.98), suggests that many sole proprietors have a strong belief in their ability to manage personal debt and make informed financial decisions. This aligns with the findings of Krueger and Heck (2021), who noted that entrepreneurs commonly display high self-efficacy and optimism regarding their financial management capabilities. While such confidence can motivate and drive proactive financial behavior, it also carries the risk of underestimating potential challenges. As Moore (2017) explained, overconfident individuals may overlook important risks or make decisions without fully considering their financial capacity, which can lead to financial strain and emotional stress when outcomes do not align with expectations.

The lowest-rated factor, self-control (M = 3.79), while still classified as "High," indicates that there is comparatively less discipline in managing borrowing and spending behaviors among the respondents. This finding suggests that many proprietors struggle to apply financial restraint, particularly when faced with consistent financial pressure. Afek et al. (2020) highlighted that individuals with lower self-control are more likely to engage in short-term borrowing to address immediate needs, thereby increasing the risk of falling into debt cycles. Similarly, Wu et al. (2018) observed that limited self-control often leads to impulsive financial decisions and a greater reliance on short-term debt mechanisms, which can undermine long-term financial stability.

Table 4. Factors of personal debt

Factors of Personal Debt	Mean	Std. Deviation	Interpretation
Self-Control	3.79	0.74	High
Over Confidence	3.98	0.61	High
Peer Influence	3.97	0.66	High
Overall Personal Debt	**3.91**	**0.55**	High

Overall, the results in Table 4 suggest that while sole proprietors in Cateel generally approach personal debt with confidence and a degree of financial awareness, challenges in maintaining consistent self-control, as well as the strong influence of peer dynamics (M = 3.97), highlight areas of behavioral vulnerability. As discussed in Chapter 2, balancing confidence with realistic financial assessment and improving self-control through targeted financial education can help reduce the risks associated with personal debt (Krueger & Heck, 2021; Moore, 2017; Afek et al., 2020; Wu et al., 2018).

4.2 The Status of Mental Health Among Sole Proprietors

In recent years, growing attention has been directed toward understanding the mental health challenges faced by individuals in the entrepreneurial sector, particularly sole proprietors. Unlike employees in structured corporate environments, sole proprietors often bear the full weight of business decision-making, financial management, and operational execution—pressures that can significantly impact their psychological well-being. According to Stephan (2018), entrepreneurs are more likely than the general population to report symptoms of anxiety, burnout, and depression due to the high level of uncertainty and risk inherent in self-employment. This research aimed to investigate the state of mental health among sole proprietors in terms of resilience, self-sufficiency, and stress levels.

4.2.1 The Status of Mental Health Among Sole Proprietors in terms of Resilience

The highest-rated item, "During times of stress/crisis, knows where to turn for help" (M = 4.25), indicates that most sole proprietors actively seek out support systems when dealing with stress or crises. This behavior reflects a key characteristic of resilience — the ability to utilize external resources effectively. Fletcher and Sarkar (2017) emphasized that resilient individuals not only rely on internal strength but also recognize the importance of reaching out for help when needed, whether through family, friends, or community networks. In entrepreneurial contexts, this ability is critical, as it helps mitigate the isolating effects of financial stress and enhances emotional well-being. Additionally, having access to supportive relationships serves as a protective factor against mental health deterioration during periods of uncertainty (Nguyen et al., 2018).

In contrast, the lowest-rated item, "Able to adapt when changes occur" (M = 4.00), while still rated "High," suggests that respondents may face slightly more difficulty adjusting to new or unexpected circumstances. This finding highlights an area of resilience that could be further strengthened. As discussed by Connor and Davidson (2018), adaptability is a central component of resilience, involving flexibility in thinking, emotional regulation, and openness to change. In small business environments, where market shifts and financial challenges are common, the ability to adapt quickly is essential for long-term success and mental health.

A lower score in this area indicates that some proprietors experience discomfort or resistance when faced with sudden changes, which could increase their vulnerability to stress.

Overall, the results in Table 5 suggest that sole proprietors in Cateel demonstrate strong resilience, particularly in their ability to access support and maintain a positive self-concept during difficult times. However, fostering greater adaptability could further enhance their capacity to manage business and personal challenges effectively. As highlighted in Chapter 2, promoting resilience through skills development and stress management training can improve both entrepreneurial performance and mental well-being (Fletcher & Sarkar, 2017; Connor & Davidson, 2018; Nguyen et al., 2018).

Table 5. Status of mental health among sole proprietors in terms of resilience

Statements	Mean	Std. Deviation	Interpretation
Able to adapt when changes occur.	4.00	0.69	High
Know that coping with stress can make me stronger.	4.04	0.69	High
Give my best effort no matter what the outcome may be.	4.09	0.66	High
Believe that I can achieve my goals, even if there are obstacles.	4.18	0.75	High
During times of stress or crisis, knows where to turn for help.	4.25	0.75	Very High
Not easily discouraged by failure.	4.18	0.71	High
Thinking as a strong person when dealing with life’s challenges and difficulties	4.21	0.71	Very High
Can make unpopular or difficult decisions that affect other people if it is necessary.	4.10	0.86	High
Able to handle unpleasant or painful feelings like sadness, fear, and anger.	4.19	0.68	High
In dealing with life's problems, I sometimes have to act on a guess without knowing why.	4.21	0.78	Very High
Average	4.15	0.48	High

4.2.2 The Status of Mental Health Among Sole Proprietors in terms of Self-support

Table 5 presents the descriptive statistics for the state of mental health among sole proprietors in terms of self-support. The sole proprietors in Cateel, Davao Oriental, exhibit a high level of self-support, as indicated by an average mean score of 4.15 with a standard deviation of 0.56, interpreted as "High." The results suggest that respondents have access to strong personal and social support systems, which play an important role in maintaining their mental well-being.

The highest-rated item, "Friends try to help" (M = 4.25), indicates that many respondents experience a high level of support and willingness to assist from their peers. This finding underscores the importance of social networks in mitigating the effects of stress and fostering psychological resilience. As discussed by Cohen and Syme (2019), the presence of supportive relationships significantly contributes to

emotional well-being by providing opportunities for emotional expression, problem-solving assistance, and practical support. In entrepreneurial contexts, where individuals often face financial uncertainty and isolation, peer support can be a critical factor in sustaining mental health and motivation (Nguyen et al., 2018).

In contrast, the lowest-rated item, "Can talk about my problems with my friends" (M = 4.02), although still interpreted as "High," suggests that there may be some limitations in the respondents' comfort level or openness when discussing personal difficulties with peers. While friends are willing to help, as shown by the highest-rated item, initiating conversations about personal problems may still be challenging for some proprietors. According to Uy et al. (2020), entrepreneurs often struggle with expressing vulnerability due to perceived expectations of independence and self-reliance. This cultural or psychological barrier can limit the benefits of available support networks, leaving individuals to cope with stress internally.

Table 6. Status of mental health among sole proprietors in terms of self-support

Statements	Mean	Std. Deviation	Interpretation
Can talk about my problems with my friends.	4.02	0.77	High
The family is willing to help me to make decisions.	4.12	0.71	High
Friends try to help	4.25	0.77	Very High
I get the emotional help and support I need from my family.	4.23	0.71	Very High
Average	4.15	0.56	High

Overall, the data in Table 6 highlight that sole proprietors in Cateel generally have strong support from both friends and family, which serves as a protective factor against mental health challenges. However, encouraging greater openness and communication about personal struggles could further enhance the effectiveness of these support systems. As emphasized in Chapter 2, fostering a culture of open dialogue and peer support within entrepreneurial communities can help strengthen resilience and overall mental well-being (Cohen & Syme, 2019; Nguyen et al., 2018; Uy et al., 2020).

4.2.3 The Status of Mental Health Among Sole Proprietors in terms of Stress Levels

Table 7presents the descriptive statistics for the state of mental health among sole proprietors, specifically regarding stress levels. The sole proprietors in Cateel, Davao Oriental, exhibit a high level of stress related to financial matters, as indicated by an average mean score of 3.67 with a standard deviation of 0.95, interpreted as "High." Each of the individual items also falls within the "High" range, reflecting the widespread and consistent presence of financial stressors among the respondents.

The highest-rated item, "Couldn't sleep because of being worried about paying the bill" (M = 3.72), indicates that financial stress is significantly affecting the respondents' physical well-being and daily functioning. Sleep disturbance is a well-documented symptom of chronic stress and financial strain. As discussed by Kaltenbrunner et al. (2019), the inability to sleep due to financial concerns is a key indicator of the psychological toll of debt-related stress. Lack of rest can further impair cognitive functioning, reduce resilience, and exacerbate emotional distress, creating a cycle of deteriorating mental and physical health. In the entrepreneurial context, poor sleep can also impair business decision-making and operational performance, increasing both personal and professional risks.

In contrast, the lowest-rated item, "Getting depressed and restless with current financial situation" (M = 3.54), although still rated as "High," suggests that while feelings of depression and restlessness are present, they may not be as pronounced as other physical manifestations of stress, such as sleep disturbance or concerns over medical expenses. However, this result remains concerning, as Sweet et al. (2018) noted that even moderate levels of financial stress-related depression can impair overall mental health and quality of life.

Table 7. State of mental health among sole proprietors in terms of stress levels

Factors Affecting Mental Health	Mean	Std. Deviation	Interpretation
Could not sleep because of being worried about paying the bill.	3.72	0.94	High
Have high blood pressure due to financial difficulties.	3.61	1.12	High
Feeling depressed and restless due to the current financial situation.	3.54	1.19	High
Cannot afford (financially) to see a doctor when sick	3.71	1.16	High
Cannot afford (financially) to get healthier food	3.71	1.14	High
Worried about medical expenses.	3.71	1.05	High
Became depressed as a result of thinking about finances.	3.69	1.03	High
Average	3.67	0.95	High

Similarly, Baum et al. (2021) emphasized that emotional symptoms such as restlessness and depressive feelings are early indicators of more severe mental health outcomes if financial pressures persist over time.

Overall, the data in Table 7 reveal that financial stress is a pervasive concern for sole proprietors in Cateel, affecting both their physical health (sleep, blood pressure, and access to medical care) and emotional well-being. As highlighted in Chapter 2, addressing financial stress through interventions such as financial counseling, debt management education, and access to mental health support is essential to breaking the cycle of stress-related health problems (Kaltenbrunner et al., 2019; Sweet et al., 2018; Baum et al., 2021).

4.2.4 Factors Affecting Mental Health

Table 8 presents the descriptive statistics for the factors affecting the mental health of sole proprietors. The respondents in Cateel, Davao Oriental, demonstrate an overall very high level of mental health, as indicated by an average mean score of 3.99 with a standard deviation of 0.51. Among the individual factors, resilience and social support are rated as "Very High." In contrast, stress levels are rated as "High," highlighting both strengths and ongoing challenges in the mental well-being of the respondents.

Table 8. Factors affecting mental health

Factors Affecting Mental Health	Mean	Std. Deviation	Interpretation
Resilience	4.15	0.48	Very High
Social Support	4.15	0.56	Very High
Stress Level	3.67	0.95	High
Overall Mental Health	**3.99**	**0.51**	Very High

In contrast, the lowest-rated factor, stress level (M = 3.67), although still interpreted as "High," indicates that financial and business-related stress remains a persistent concern. As seen in previous results (Table 7), stress is primarily driven by financial pressures, including paying bills, affording healthcare, and meeting daily living expenses. Sweet et al. (2018) emphasized that chronic financial stress is a major risk factor for both mental and physical health deterioration. Additionally, Baum et al. (2021) noted that prolonged exposure to financial stress can undermine resilience and the benefits of social support if not addressed.

4.3 Significant Relationship Between Personal Debt and Mental Health Among Sole Proprietors of MSMEs

Table 9 presents the results of the Pearson correlation analysis on the significant relationship between personal debt and mental health among sole proprietors of MSMEs in Cateel, Davao Oriental. The findings show that personal debt behaviors — specifically self-control, overconfidence, and peer influence — are significantly correlated with mental health indicators, including resilience, social support, stress level, and overall mental health. These results confirm that the way sole proprietors manage their debt has a meaningful impact on their psychological well-being.

The strongest relationship is observed between overall personal debt and overall mental health (r = 0.786), indicating a strong correlation. This suggests that the collective impact of debt-related behaviors plays a significant role in shaping the respondents' mental health outcomes. As discussed by Wu et al. (1998), personal debt behaviors reflect both cognitive and emotional patterns that influence stress levels, resilience, and overall well-being. When debt is managed effectively through self-control and informed financial decisions, mental health outcomes tend to be more positive. Conversely, poor debt management increases emotional strain and vulnerability to mental health issues (Sweet et al., 2018; Miles et al., 2016).

The high correlation highlights that interventions designed to enhance debt management skills can yield substantial mental health benefits for small business owners.

In contrast, the weakest relationship is found between self-control and social support (r = 0.334), indicating a weak correlation. This suggests that while self-control influences internal coping abilities and stress regulation, it does not significantly impact the extent of external emotional or social support an individual receives.

Table 9. Significant relationship between personal debt and mental health among sole proprietors of MSMEs

Variables		Resilience	Social Support	Stress Level	Overall Mental Health
Self-Control	Pearson Correlation	0.486	0.334	0.652	0.673
	Interpretation	Moderate relationship	Weak relationship	Moderate relationship	Moderate relationship
Over Confidence	Pearson Correlation	0.621	0.406	0.366	0.566
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	Interpretation	Moderate relationship	Moderate relationship	Weak relationship	Moderate relationship
Peer Influence	Pearson Correlation	0.636	0.336	0.609	0.694
	Interpretation	Moderate relationship	Weak relationship	Moderate relationship	Moderate relationship
Overall Personal Debt	Pearson Correlation	0.700	0.433	0.669	0.786
	Interpretation	High relationship	Moderate relationship	Moderate relationship	High relationship

According to Cohen and Syme (2019), social support is typically shaped by interpersonal dynamics and social networks, which operate independently of an individual's self-regulation capacities. In other words, a proprietor may exercise strong or weak self-control in financial matters, but this has limited bearing on whether family and friends offer emotional support.

Overall, the results in Table 9 confirm that personal debt behaviors have a clear and significant relationship with various dimensions of mental health among sole proprietors. The strongest link with overall mental health highlights the importance of promoting responsible financial behaviors to support psychological resilience and well-being. At the same time, enhancing external support systems remains crucial, as financial self-control alone may not guarantee sufficient social or emotional support.

5. CONCLUSION

Based on the results, this study concluded the following: The majority of sole proprietors in Cateel, Davao Oriental, were aged 31 to 35 years, female, married, with a high school education, and had a monthly income of Php 10,000 or less. These characteristics suggested that many proprietors operated within low-income brackets, with limited formal education and a predominance of women in self-employment, likely reflecting local economic and social dynamics.

The respondents exhibited a moderate level of personal debt behavior, characterized by moderate self-control in spending and borrowing, moderately high overconfidence in their perceived ability to manage loans, and moderate peer influence, indicating that borrowing behavior was partly shaped by social or peer-related factors. These findings suggested a balance between responsible financial behavior and risk-prone tendencies.

The mental health of sole proprietors was generally assessed as "Good," with the following indicators: resilience was strong, indicating the ability to cope with adversity; social support from friends and family was high, reinforcing emotional well-being; and stress levels were present, particularly regarding financial challenges such as bills, medical expenses, and food affordability, though still within manageable levels. This indicated that while most respondents were coping effectively, financial stress remained a persistent psychological pressure.

There was a statistically significant relationship between personal debt and mental health. All debt-related variables—self-control, overconfidence, and peer influence—were significantly correlated with mental health indicators. These results confirmed that how sole proprietors managed their personal debt played a significant role in their emotional stability and psychological resilience.

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