Saving Behavior Factors among Working Students in Kathmandu Valley Amid the COVID-19 Pandemic

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Abstract

In recent times, the financial landscape of Kathmandu Valley has witnessed a surge in the number of working students who balance their educational pursuits with employment commitments. In parallel, the outbreak of the COVID-19 pandemic has introduced unprecedented economic and sociological disruptions, potentially altering the financial habits of individuals. Therefore, the purpose of this study is to explore the saving behavior of working students in Kathmandu Valley, while also investigating whether the pandemic plays a mediating role in this context. To achieve these objectives, explanatory research design is used to analyze the connections and causal effects between the factors of saving behavior among working students in Kathmandu valley. Structural Equation Modeling (SEM) using the Partial Least Square (PLS) version 4.0 is adopted for data analysis. The findings reveal significant support for all the hypotheses proposed in the study. The analysis indicated that the economic factor, sociological factor, psychological factor and Covid 19 have a positive impact on saving behavior among working students. The results also suggest that the utilization of SEM and SMART PLS provides valuable insight into understanding the relationship between various factors. The study has revealed important new information about the complex dynamics of saving behavior in the context of both personal and

societal factors. An in-depth analysis of the impact of economic, sociological, and psychological factors on the financial decisions made by working students in the Kathmandu Valley was conducted in this study, with a focus on the COVID-19 pandemic's mediating role.

Keywords: *Covid-19, economic factor, psychological factors, sociological factor, saving Behavior, working student*

Introduction

Saving behavior is a complex phenomenon that is influenced by a variety of factors, including economic, sociological, and psychological factors (Lehal & Ritu, 2022). Economic factors such as income, employment status, and financial literacy have been shown to have a significant impact on saving behavior (Gutter et al., 2012). Sociological factors such as family background, parental financial socialization, and peer influence have also been shown to play a role in saving behavior (Dahlone et al., 2007). Psychological factors such as self- control, risk tolerance, and time preference have also been shown to influence saving behavior (Sussman et al., 2016).

The COVID-19 pandemic has had a significant impact on the global economy, and it is likely that this has also affected the saving behavior of working students in the Kathmandu Valley. However, there is no research to date on how the pandemic has affected saving behavior in this context. Despite a substantial body of literature on saving behavior and its influencing factors, there is a significant gap regarding the specific impact of the COVID-19 pandemic on the saving behavior of working students in the Kathmandu Valley. A comprehensive analysis of prominent research databases, surveys, reports, academic conferences, and journals revealed a lack of published studies that directly investigate the effects of the pandemic on the saving behavior of working students in this region. This knowledge gap highlights the urgency and importance of conducting research to understand the unique challenges and adaptations faced by working students during the pandemic in the Kathmandu Valley, and to provide valuable insights for policymakers and stakeholders in developing targeted interventions to support their financial well-being. The reality of the topic in ground level is that working students in the Kathmandu Valley are facing a number of challenges that make it difficult for them to save money (Thapa et al., 2023). These challenges include living costs, and a lack of financial literacy. The COVID-19 pandemic has only made these challenges worse. Economic factors refer to the financial aspects that impact individuals' saving behavior. These factors include income levels, employment stability, expenses, and financial obligations. Higher income levels, stable employment, and manageable expenses are generally associated with a greater ability to save (Lusardi et al., 2004). Conversely, lower income, unstable employment, and high financial obligations may hinder saving behavior. Sociological factors pertain to the social and cultural influences on saving behavior. These factors encompass social norms, peer influence, and family support. Social norms dictate the accepted behaviors and attitudes towards saving within a society or community (Donohoe and G, 1990). Peer influence can shape individuals' saving behavior as they may be influenced by the habits and attitudes of their friends and social circle. Family support, including paren-

tal financial socialization and encouragement, plays a significant role in developing saving habits. Psychological factors encompass the cognitive and emotional aspects that influence saving behavior. These factors include financial attitudes, self-control, and future time orientation. Financial attitudes refer to individuals' beliefs, values, and perceptions about money and saving (Lusardi et al., 2013). Self-control pertains to the ability to delay gratification and resist impulsive spending (Baumeister et al., 2016). Future time orientation refers to the extent to which individuals prioritize long term goals over immediate desires.

In Nepal, the saving behavior of working students is significantly influenced by economic, psychological, and sociological factors. Higher income levels, stable employment, and access to financial services positively impact saving behavior, while psychological factors such as future orientation and financial attitudes play a role. Sociological factors like social norms and peer influences also shape students' attitudes towards saving. Efforts to increase financial inclusion, accessibility to banking services, and implementation of the Financial Literacy Framework have contributed to improved financial behavior among students. Leveraging these insights, targeted strategies can be developed to empower students with financial knowledge and skills, promoting responsible financial decision-making and long-term saving habits for their overall well- being and economic growth of the country.

The attraction to the share concept, bond, and different investment opportunities students are encouraged to invest in their any agent in their school age. The saving behavior of working students has become a matter of increasing concern, especially amidst the backdrop of the COVID-19 pandemic. The ideal state envisions financially literate and well-prepared working students who can effectively manage their income, expenses, and savings to secure a stable financial future. However, the reality presents a contrasting picture, where many working students face challenges in cultivating optimal saving habits and coping with the financial repercussions of the pandemic. The consequences of this disparity are multifaceted and warrant urgent attention. As the pandemic brought economic uncertainties and disruptions, working students encountered difficulties in sustaining their education, meeting essential expenses, and building a financial safety net (Thapa et al., 2023). The lack of comprehensive research on this specific demographic group hampers the development of targeted interventions, exacerbating their financial struggles and hindering their academic pursuits. In a study by Chen et al. (2020), it was revealed that financial obligations, such as student loan debt and other financial liabilities, negatively impacted the saving behavior of young adults, including working students. A study by Gutter et al. (2012), examined the influence of social norms on saving behavior and found that individuals who perceived saving as a socially desirable behavior were more likely to save. Research by Thompson and Wilson (2020) explored the influence of future time orientation on saving behavior and found that individuals with a stronger future orientation were more likely to prioritize long-term saving goals. A survey conducted by the National Association of Student Money Advisers (2020) reported that the pandemic led to increased financial uncertainty among students, resulting in reduced saving behavior and greater reliance on emergency funds.

The problem statement revolves around the need to understand and address the exploring factors influencing the saving behavior of working students in Kathmandu Valley, with particular attention to the mediating role of the pandemic.

Literature Review

Conceptual Framework

Beyond exploring the fundamental question of the nature and conceptualization of saving behavior among working students in Kathmandu Valley, this research draws from various empirical studies and theories to understand the factors influencing their saving habits. The research delves into economic, sociological, and psychological theories to create a comprehensive understanding of the saving behavior of working students. The Economic theories such as the Life-Cycle Theory (Modigliani, 1963)and Behavioral Economics (Thaler, 2006) provide insights into how income levels, employment stability, and financial literacy can impact saving behavior. Sociological theories like Social Learning Theory (Bandura, 1969) and Social Norms Theory (Chung & Rimal, 2016)as a topic of inquiry, has garnered significant attention from a variety of perspectives in recent years. Because of the rapidly-growing interest in social norms from scholars in multiple disciplines, this area of scholarship is often characterized by a lack of clarity on what constitutes social norms and how key concepts are operationalized. The objectives of this article are to (a shed light on how family dynamics, peer influence, and cultural practices shape students' attitudes towards saving. Additionally, psychological theories such as the Theory of Planned Behavior (Ajzen, 2002) and Future Time Perspective Theory (McInerney, 2014) offer valuable perspectives on how individual traits and beliefs influence saving behavior.

Among these theories, the research considers various conceptual models to examine the interplay of factors affecting saving behavior among working students in Kathmandu Valley. Adopting a suitable model is crucial for the research purpose. For instance, the Theory of Planned Behavior could help explore the impact of financial attitudes and self- control on saving habits (Ajzen, 2002). The Life-Cycle Hypothesis might be relevant in understanding how future orientation influences long-term saving decisions (Modigliani, 1963). Additionally, the research could utilize a Mediation Analysis to investigate the potential mediating role of the COVID-19 pandemic in shaping the relationship between economic, sociological, and psychological factors and the saving behavior of working students (Baron & Kenny, 1986). The central concept of the conceptual framework is the saving behavior of working students in the Kathmandu Valley. This concept is influenced by three main factors: economic factors, sociological influences, and psychological factors. These factors have a direct impact on saving behavior and may also be influenced by the mediating role of the pandemic.

Figure 1
Conceptual Framework
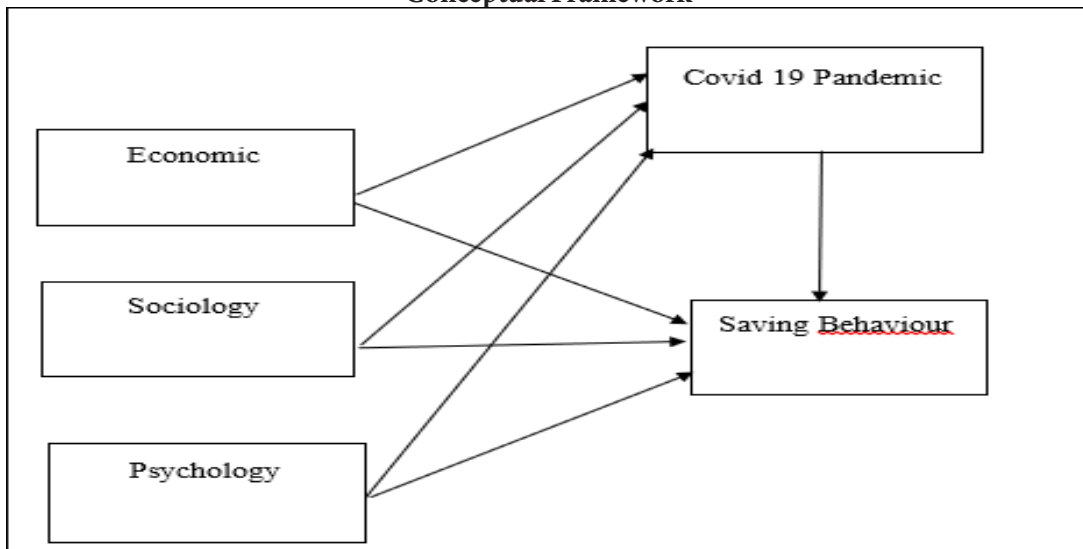
Note. Copur and Gutter (2019)

Economic and Saving Behavior

This category includes variables such as income level, employment status, expenses, and financial literacy. Economic factors directly affect the financial resources available to working students and their ability to save. Higher income levels, stable employment, and better financial literacy are expected to positively influence saving behavior. It has been discovered that both direct and indirect influences on saving behavior come from economic and demographic factors, particularly those related to life cycle stages and access to resources.

H1: *Economic Factors has significant positive relationship with saving behavior.*

Sociology and Saving Behavior

Individual saving is considered as a component of any society's social structure and is believed to be helpful in supporting economic growth. The social environment in which the individual lives must be taken into consideration in order to take the proper saving action. Sociological factors encompass variables such as cultural norms, social expectations, parental socialization, and peer influence. These factors reflect the social environment in which working students operate and can shape their attitudes, beliefs, and behaviors related to saving. Societal expectations and peer influence can either encourage or discourage saving behavior. Financial socialization, the methods through which humans learn about money, and financial behavior have all been the subject of research by a number of researchers. Previous studies have shown that social influence (SI) is a significant direct predictor of saving behavior among Ugandans. The impact of other people's behaviors, as influenced by their social environment, is known as social influence (SI). A social influence is when someone or

a group uses their social standing to persuade others to adopt certain attitudes or behaviors (Saber, 2022).

H2: Sociology factor has significant positive relationship with saving behavior.

Psychology and Saving Behavior

Psychological factors include variables such as attitudes toward saving, financial attitudes, self-control, and financial goals. These factors reflect individual psychological characteristics and cognitive processes that influence saving behavior. Positive attitudes toward saving, high levels of self-control, and clear financial goals are likely to facilitate saving behavior among working student.

H3: Psychology factor has Significant positive relationship with saving behavior.

Covid 19 Pandemic and Saving Behavior

The COVID-19 pandemic has acted as a catalyst for significant changes in saving behavior. The increased emphasis on saving, driven by economic uncertainties and reduced consumption Pattern, has both short-term and long term for economic recovery and long-term impacts on individual financial habits. As societies navigate the complexities of post-pandemic recovery, finding the right balance between saving and spending will be crucial for achieving sustainable economic growth while ensuring individual financial well-being.

H4: Covid 19 pandemic has positive significant relationship with saving behavior economic Factor and Covid 19 Pandemic

H5: Economic factor has positive significant relationship with Covid 19 Pandemic Sociology Factor and Covid 19 Pandemic

H6: Sociology Factor has positive significant relationship with Covid 19 Pandemic Psychology Factor and Covid 19 Pandemic

H7: Psychology Factor has positive significant relationship with Covid 19 Pandemic

H8: Covid 19 pandemic mediates the relationship between Economic and Saving behavior

H9: Covid 19 pandemic mediates the relationship between sociology and saving behavior

H10: Covid 19 pandemic mediates the relationship between psychology and saving behavior.

Research Methods

The variable used for the study have been identified and defined. Firstly, 8 items of Economic, 7 items of Psychology 5 items of Sociological,5 items of Covid 19 and 8 items of Saving Behavior was adapted for the study. The measures for economic, psychological and sociological were based on the earlier research of recognized researches, as stated in the table below:

Table 1
Variables and their Measurement

Con-struct	Variable	Variable Notation	Items
Economic (EF)	Interest rate	EF_1	Interest rate influence my regular saving.
	Debt	EF_2	The amount of debt in the family influences my regular saving
	Consumption pattern	EF_3	The change in consumption pattern influence my regular saving
	Household Income	EF_4	My household income changes my regular saving.
	Age of House-hold head	EF_5	Grand-Parents in my house impacted my saving behavior.
	Education of Household head	EF_6	Knowledge and education of my parent helps me the save the money
	Occupation	EF_7	My current occupation helps me to save certain money
	Financial Man-agement Skill	EF_8	I have get the financial literacy and financial planning knowledge to manage my saving
Psycho-logical (PF)	Self-Efficacy	PF_1	I believe in saving money in regular basis.
	Financial risk tolerance	PF_2	I like to tolerate the risk while in investing.
	Impulsivity	PF_3	I quickly make decision while saving and investing
	Money	PF_4	The amount of money I receive from my job decides my saving.
	Attitude	PF_5	My belongings influence me to invest in different portfolio
	Anxiety	PF_6	I am conscious about the future financial plan.
	Subjective Norms	PF_7	I believe I am capable of saving money

Sociolog-ical (SF)	Importance of Saving	SF_1	My family regularly discussed on the importance of saving
	Family Spend-ing Plan	SF_2	My family members regularly discussed and prepare expenditure report
	Own Spending	SF_3	I regularly list out my spending
	Credit Card rang	SF_4	I make a rang to make expenses from credit card.
	Saving and Investing	SF_5	I take advice from family, friends, financial planner to saving my money.
Covid -19 (COV)	Difficulty	COV_1	During covid -19 I find difficulty in managing my account and credit card
	Personal financ-es	COV_2	During covid -19, I find difficulty in managing my personal finances
	Debt	COV_3	During covid -19, I am worried about the debt I will have at the end of the pandemic
	Stress	COV_4	The covid-s 19 has make my stress to manage my finance
	Regular saving	COV_5	During pandemic I regularly save money as I before
Saving behavior (SB)	Saving Account	SB_1	I have allocated account for saving.
	Investment Account	SB_2	I have allocated account for invest-ment.
	Regular Saving	SB_3	I put money aside on a regular basis for the future.
	Emergency	SB_4	I always have money available in the event of emergency
	Monthly Budget	SB_5	In order to save, I always follow a careful monthly budget.
	Reduce Expen-diture	SB_6	In order to save, I plan to reduce my expenditure
	Necessity	SB_7	In order to save, I often consider whether the real necessity before I make a purchase.
	Expand	SB_8	I am thinking to expand my saving

Study Area, Population and Sampling Techniques

The study area for this research is Kathmandu Valley, Province no.3, Nepal. The Valley Comprises three districts. Kathmandu, Bhaktapur and Lalitpur. The latitude of the valley is between 27 32' 13" and 27 49' 10" north, while the longitude falls between 85 11' 31"and 85 31' 38" east. It is located at an average height of around 1,300 meters (4,265 feet) above sea level.

Kathmandu valley is located in the central part of the country with the Population of around 1.5 million people (Rajbhandari et al., 2022).

It is selected as the study area due to its significance as the capital city and economic hub of Nepal. Firstly, the valley is home to numerous educational institutions and workplaces where a significant number of working students are employed. The economic activities and financial dynamics in this area make it an ideal setting to investigate the saving behavior of working students. The Valley comprises a diverse population with individuals from various ethnic backgrounds and socioeconomic statuses. This diversity provides an opportunity to explore how cultural norms and social influences affect saving behavior among working students. Kathmandu it offers easy accessibility and convenience in terms of data collection and research logistics. The availability of educational institutions and workplaces in close proximity allows for efficient sampling and data collection procedures. In the context of this research study a systematic sampling technique is employed. This method involves selecting every semester working student from a list obtained from educational institutions in the Kathmandu Valley. By using systematic sampling, the study aims to strike a balance between randomness and practicality, ensuring the chosen sample is diverse and reflective of the characteristics of the broader population. This technique enhances the study's ability to explore and analyze the interplay of various factors in the saving behavior of working students in the region.

Several techniques are available for determining the appropriate sample size. In the case of small populations, options include conducting a census, replicating sample sizes from prior studies, utilizing established tables, and employing formulas to derive sample sizes (Naing, 2003). Cochran introduced an equation aimed at generating a statistically representative sample for proportions in sizable populations. This equation is as follows: , Where $=$ sample size for study, Standard tabulated value for 5% level of significance (z) = 1.96, Prevalence or proportion of an event 50% = 0.50, p= 0.5, q =1-P, = 0.5, Allowable error that can be tolerated (e) = 6%. This study also undertakes a 5% non-response error. Thus, the sample size taken for the study was 280.

Research Instrument and Data Collection

This study's main research tool is a structured questionnaire. The structure questionnaire has been designed to collect primary data and survey respondents in order to analyze the components that influence improved financial decision-making and overall financial well-being of individuals. This questionnaire was carefully developed in order to achieve the study's goal. In order to ensure that the respondents understood the topic and could provide meaningful answers, it included both open-ended and closed-ended questions that were said in a way that was easy to understand.

The researcher gave special attention to the arrangement and structure of the survey instrument after developing the questionnaire. The KOBO toolbox was updated to include the structured questionnaires for the purpose of data collecting. The instrument's accuracy and dependability were then confirmed in a pilot survey with a small sample size of about 10. This pilot survey had the purpose of validate the right question ordering and sequencing,

as well as to make sure the language used in the questionnaire was appropriate and efficient in collecting the required data. The duration of data collecting was August 2023 to September 2023.

Result and Analysis

Socio Demographic Analysis

This study analyses the socio- demographic characteristic of 280 working students of Kathmandu valley. Among 280 respondents, 71.74% were male, another 0.31% and the remaining 27.95% were female. This study also revels the majority of respondents i.e., 82.61%, were married. Out of total respondents, the most respondents (63.86%) belong to the age group of 18-25, which represents that this age group has a higher level of working student who are working and studying at the same time. Likewise, Majority of working students hold bachelor's and master degree, comprising 75.16% and 19.88% of the total sample. The most of the student lives in a rented house (51.24%), own house (44.72%) remaining students' lives in others house (4.04%). Similarly, the most student belongs to city area (52.8%) compared to other area. The most of the student parent's occupation is the job holder rather than other occupation. In this study the most student working in IT sectors i.e. (44.1%) comparing to another sector. Similarly, the student experience below 1 year is higher than the remaining experience level or most student work in full time rather than the part time job. Additionally, in term of their monthly income level, 28.57% earned below 10,000, 24.53% earned rang of 10,000-20,000, likewise 12.73% student earned 20000-30,000 and similarly (15.53%), student earned above 50,000. Therefore, the study indicates a male-dominated majority with elevated marriage rates, with most respondent pursuing IT careers in urban areas with less than a year of experience.

Table 2
Socio Demographic Analysis

Variables	Category	Number	Percentage (%)
Gender	Male	231	71.74
	Female	90	27.95
	Others	1	0.31
Age	18-25	205	63.86
	25-35	105	32.71
	35-45	10	3.12
	45 and above	1	0.311
Marital status	Married	266	82.61
	Unmarried	55	17.08
	Others	1	0.31

Education level	Bachelor's	242	75.16
	Master	64	19.88
	Above Master	4	1.24
	Others	12	3.73
Housing arrangement	Rented house	165	51.24
	Own house	144	44.72
	Others	13	4.04
Area belongs to	Rural area	77	23.91
	Urban area	74	22.98
	City area	170	52.8
	Others	1	10.31
Parent's occupation	Job holder	134	41.61
	Farmer	60	18.63
	Business	84	26.09
	Others	44	13.66
Working sector	Trading sector	11	3.42
	Government sector	8	2.48
	IT sector	142	44.1
	Agricultural sector	8	2.48
	Manufacturing sector	11	3.42
	Health sector	15	4.66
	Educational sector	86	26.71
	Others	41	12.73
Work experience	Below 1 year	163	50.62
	1-3 year	77	23.91
	3-5 year	32	9.94
	Above 5 years	50	15.53
Working position	Manger	34	10.56
	Assistant manager	16	4.97
	Employee	199	61.8
	Others	73	22.67
Employment status	Full time	172	53.42
	Part time	150	46.58
Income level	Below 10,000	92	28.57
	10, 000-20,000	79	24.53
	20,000-30,000	41	12.73
	30,000 - 40,000	34	10.56
	40,000 - 50,000	26	8.07
	Above 50,000	50	15.53

Note. Survey Data (2023)

General Understanding of Saving Behavior

This study tries to depict the general perspective of working student to analyze the saving behavior. It seeks to uncover insights about the students understanding related to saving behavior, their medium of saving, purpose of saving along with the investment from those savings.

Table 3
General Understanding of Saving Behavior

S. N	Variables	Explanation	Frequency	Percentage
1.	Started saving for 1st time	Below 1 year	90	27.95
		1-3 year	77	23.91
		4-5 years	29	9.01
		6-12 years	38	11.8
		13-19 years	36	11.18
		Above 19 years	52	16.15
2.	Responsible person for starting the saving	Parents	140	43.48
		Grandparent	16	4.97
		Self	160	49.69
		Others	6	1.86
3.	Medium for saving in 1st time	DMAT account open	80	24.84
		Fixed deposit	54	16.77
		Insurance	17	5.28
		Piggy bank	120	37.27
		Others	51	15.84
4.	Saving at present	Yes	230	71.43
		No	92	28.57
5.	Medium for saving	DMAT account open	134	41.61
		Fixed deposit	76	23.6
		Insurance	37	11.49
		Piggy Bank	41	12.73
		Others	30	9.32
6.	Years of saving	Below 1 year	64	19.88
		1-3 years	88	27.33
		3-5 years	36	11.18
		Above 5 years	42	13.04

7.	Purpose of saving	Regular Monthly fee payment	59	18.32
		Future Investment	130	40.37
		Instalment's payment	13	4.04
		To cover future living expenses	69	21.43
		To purchase goods/ Gadgets	74	22.98
		Others	7	2.17
8.	Invest in different portfolio	Yes	181	56.21
		No	141	43.79
9.	Medium of Investment	Share	132	40.99
		Bond	12	3.73
		Mutual fund	23	7.14
		Gold	20	6.21
		Real state	9	2.8
		Debenture	8	2.48
		Others	5	1.55
10.	Recording of saving	Yes	201	62.42
		No	121	37.58
11.	Frequency of recording pattern	Always	45	13.98
		Very often	43	13.35
		Sometimes	33	10.25
		Never	0	0
12.	Covid 19 affect regular income	Yes	229	71.12
		No	93	28.88
13.	Covid time, increased or decreased	Increase	271	84.16
		Decrease	51	15.84
14.	Increasing amount affect the saving pattern	Yes	35	10.87
		No	16	16
15.	How much the income increased	Below 10%	22	6.83
		10%- 20%	20	6.21
		20%-30%	5	1.55
		Above 50%	4	1.24

16.	The decreased amount affects the saving	Yes	239	74.22
		No	32	9.94
17.	The percentage of decreased income	Below 10%	78	24.22
		10%-20%	71	22.05
		20%-30%	66	20.5
		Above 50%	56	17.39

Note. Survey Data (2023)

The provided data offers a comprehensive view of respondents' saving behaviors and their experiences with savings and investments. It begins by detailing when individuals start on their first savings journey, with a significant portion (27.95%) initiating savings from below 1 year old, and others started saving at 1-3 years old, 4-5 years old, 6-12 years old, 13-19 years old and more than 19 years old. The data then shifts its focus to the individuals who played pivotal roles in starting these savings, with the majority (49.69%) attributing the initiation to themselves, followed closely by parents (43.48%), grandparents (4.97%), and others (1.86%). The medium employed for initial savings is also explored, with the most common choice being piggy banks (37.27%), while some preferred methods such as DMAT accounts, fixed deposits, insurance, or other alternatives. Notably, a significant percentage of respondents (71.43%) are presently engaged in saving activities. The preferred saving mediums at present are mainly DMAT accounts (41.61%) and fixed deposits (23.6%), indicating a preference for more structured and secure financial instruments.

The data then delves into the duration of current savings, showcasing a range of durations from less than a year to more than 5 years, with the majority (27.33%) saving for 1-3 years. Moreover, the respondents' motivations for saving are revealed, with the primary purposes being future investments (40.37%), covering future living expenses (21.43%), and purchasing goods or gadgets (22.98%). Investment diversification is explored, highlighting that over half of the respondents (56.21%) diversify their investments. For those who diversify, the data provides insights into the various investment mediums they choose, including shares, bonds, mutual funds, gold, real estate, debentures, or others. Record-keeping habits regarding savings are also examined, with 62.42% of respondents confirming that they maintain records of their savings. For those who keep records, the frequency of recording patterns ranges from "Always" to "Never. "The data then shifts its focus to the impact of COVID-19 on respondents' regular income, with the majority (71.12%) reporting that the pandemic had indeed affected their income. Among those affected, a significant majority (84.16%) noted an increase in their income during this period, while 15.84% experienced a decrease.

Furthermore, it is revealed that an increase in income affected the saving patterns of a portion of respondents (10.87%). For those affected, the extent of the income increase is detailed, with categories ranging from below 10% to above 50%. Conversely, among those whose income decreased during the pandemic (74.22%), the data highlights the extent of income reduction, categorized from below 10% to above 50%. This comprehensive dataset offers valuable insights into the financial behaviors and experiences of the surveyed indi-

viduals, providing a nuanced view of their saving, investment, and response to economic challenges like the COVID-19 pandemic.

Challenges of Saving Behavior

The working student are involving in generating in their income but managing the personal life and professional life they find some challenges the figure 2 represent some of the challenges encounter by the respondent.

Figure 2
Challenges Faced for Saving
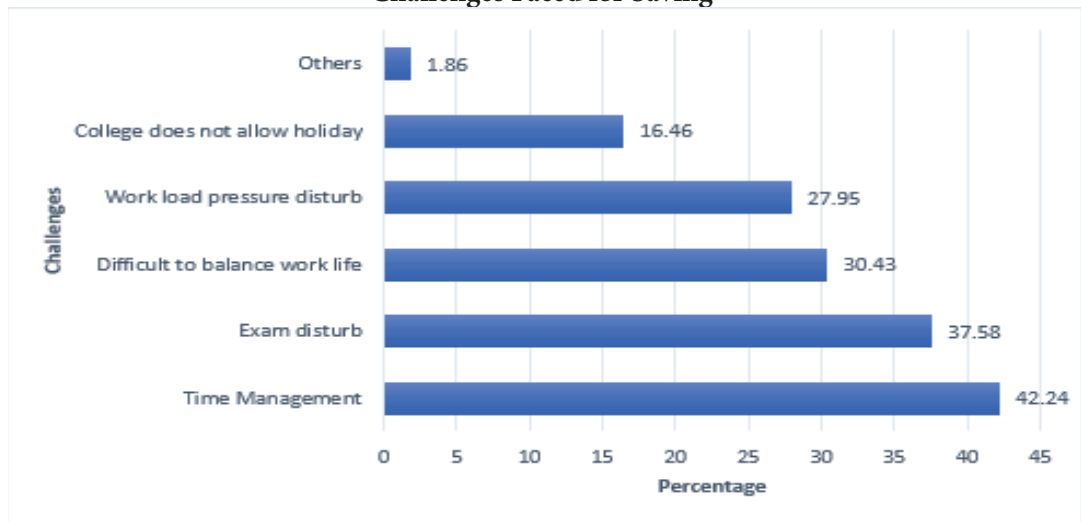
Note. Survey Data (2023)

The bar graph shows the percentage of college students who report having difficulty balancing work and life, based on the results of a survey. The graph is divided into seven bars, each representing a different challenge that students face. The most common challenge is time management (42.24%), followed by exam disturb (37.58%), difficult to balance work life (30.43%), work load pressure disturbs (27.95%), college does not allow holiday (16.46%), and others (1.86%). Hence, the study reveals the difficulties students encounter in achieving a work-life balance, with challenges such as time management, exam disruptions, workload pressures, and college-imposed restrictions on holidays.

Improvement of Saving Behavior of Working Students

This study provides various suggestions of working student for improving effective saving behavior which includes responses such as enhancing part time job, High salary, time management, freelancing and financial literacy etc.

Figure 3
Improvement of Saving Behavior of Working Students

Note. Survey Data (2023)

The study shows the most important factor contributing to improved saving behavior is financial literacy (25%). Financial literacy is the knowledge and skills needed to make informed financial decisions. Working students who are financially literate are more likely to understand the importance of saving money and to develop a budget. The second most important factor contributing to improved saving behavior is having a clear financial goal (20%). Working students who have a clear financial goal, such as saving for a down payment on a house or a new car, are more likely to be motivated to save money. The third-most important factor contributing to improved saving behavior is having a budget (15%). A budget is a plan for how you will spend your money. Working students who have a budget are more likely to track their income and expenses and to make sure that they are not overspending. The remaining three factors contributing to improved saving behavior are: Minimizing expenditure (10%), Time management (10%) and long-term financial security (5%).

Inferential Analysis

Inferential analysis aims to find out the result from the sample data from numerous statical test and find out the relationship with the variables, evaluate differences and makes forecast (Chatfield, 1995). This includes, measurement model, structural model, path analysis.

Measurement Model Results

Measurement model is assessed to measure the reliability and validity of the constructs. The outer model was assessed evaluating the internal consistency through composite reliability, as even though evaluations of Cronbach's alpha have become standard process in research.

It said to typically provide conservative assessment in PLS-SEM (Tavakol & Dennick, 2011). Previous literature has suggested the use of "Composite Reliability" as a replacement (Bagozzi and Yi, 1988; Hair et al., 2013). Whereby considering that all values of composite reliability is >0.7 indicating satisfactory level of internal consistency.

Table 4
Reliability and Validity

Coding	Latent Variables and Items	Loadings	AVE	CR	Cronbach's Alpha
EF	Economic Factor				
EF_1	Interest rate	0.765	0.511	0.879	0.839
EF_2	Debt	0.633			
EF_3	Consumption pattern	0.757			
EF_4	Household Income	0.674			
EF_6	Education of Household head	0.72			
EF_7	Occupation	0.687			
EF_8	Financial Management Skill	0.754			
PF	Personal Factor				
PF_1	Self-Efficacy	0.808	0.544	0.891	0.856
PF_2	Financial risk tolerance	0.775			
PF_3	Impulsivity	0.556			
PF_4	Money	0.708			
PF_5	Attitude	0.615			
PF_6	Anxiety	0.837			
PF_7	Subjective Norms	0.816			
SF	Sociological Factor				
SF_1	Importance of Saving	0.792	0.599	0.817	0.668
SF_2	Family Spending Plan	0.732			
SF_5	Saving and Investing	0.796			
COV	Covid 19				
COV_1	Difficulty	0.887	0.593	0.866	0.79
COV_2	Personal finances	0.877			
COV_3	Debt	0.84			
COV_4	Stress	0.808			
COV_5	Regular saving	0.221			

SB	Saving Behavior				
SB_1	Saving Account	0.737	0.545	0.893	0.86
SB_2	Investment Account	0.651			
SB_3	Regular Saving	0.752			
SB_4	Emergency	0.721			
SB_5	Monthly Budget	0.773			
SB_6	Reduce Expenditure	0.745			
SB_7	Necessity	0.783			

Note. Researcher's Calculation form Field Study (2023)

The reliability and validity in the study has met through the composite reliability and average variance which has the thread hold limit of 0.5 and 0.7 respectively. the convergent validity of the model was assessed using average variance extracted (AVE) convergent validity demonstrates how closely the construct's items are related to one another. A good indicator of convergent validity is an AVE value greater than 0.5 (Fornell & Larcker, 1981). All scores were >0.5 all values were above the recommended threshold. Few of the item's construct were deleted to achieve the minimum acceptance level of AVE (Hair et al., 2013).

Discriminant Validity

The discriminant validity is used to determine the difference of one element from other. The Fornell and Larcker Criterion, Heterotrait -Monotrait Ratio (HTMT) and cross loading are techniques used to measures to test discriminant validity. Fornal and Larcker's criterion and satisfied as the all-AVE square roots were more significant than the corresponding correlation (Hair et al., 2019). HTMT is used to estimate the correlation between the constructs, according to the Henseler et al. (2015)such as partial least squares, the Fornell-Larcker criterion and the examination of cross-loadings are the dominant approaches for evaluating discriminant validity. By means of a simulation study, we show that these approaches do not reliably detect the lack of discriminant validity in common research situations. We therefore propose an alternative approach, based on the multitrait-multimethod matrix, to assess discriminant validity: the heterotrait-monotrait ratio of correlations. We demonstrate its superior performance by means of a Monte Carlo simulation study, in which we compare the new approach to the Fornell-Larcker criterion and the assessment of (partial threshold limit for this is 0.85 or less, while Kock (2022) recommend threshold of 0.90. In this study all the HTMT and Fornell and Larcker criteria has meet, which confirms the discriminant validity in the study.

Discriminant validity was further verified using cross loadings. Cross loading determines if an item strongly loads onto its own parent construct rather than the other construct in the study. Additionally, there is no cross-loading problem because the item's cross-loading values with other constructs are less than 0.7. (Hair et al., 2020).

Table 5
Discriminant Validity

	Heterotrait -Monotrait Ratio (HTMT)					Fornell and Larcker Criterion				
	COV	EF	PF	SB	SF	COV	EF	PF	SB	SF
COV						0.77				
EF	**0.631**					0.528	0.715			
PF	0.594	**0.895**				0.499	0.768	0.738		
SB	0.618	0.759	**0.827**			0.51	0.65	0.717	0.738	
SF	0.689	0.703	0.845	**0.84**		0.501	0.539	0.646	0.646	0.774

Note. Researcher's Calculation form Field Study (2023)

Structural Model Analysis

The structural model and its underlying variables serve as a reliable and theoretically grounded connection between the observable input and output data. The primary aim of the analysis is to forecast the output layer information by leveraging the input layer data, relying on the framework. (Richter et al., 2016) In PLS-SEM When conducting a structural equation model (SEM), it is advised to test the collinearity issue. VIF is used to check the collinearity issue in the study. The VIF value must be in the range of <3.33, <5, <10).

Path Analysis

Path analysis estimates and evaluates the magnitude and significance of hypothesized causal connections among sets of variables using path diagrams, which graphically represents the theoretically based causal relationships among sets of variables (Stage et al., 2004).

Figure 3 shows the path coefficient and R^2 value of the structural model. The value of R^2 depicts the predictive power of the model, it explains the variance in the endogenous variable explained by the exogenous variables (Hair et al., 2017). Higher values of the R2denote a stronger explanatory power, which range from 0 to 1. The R2 values of 0.75, 0.50, and 0.25 are significant, moderate, and weak, respectively (Henseler et al., 2015). The model explains 34.6% of the variance i.e., R2, in Covid and 59.7% in Saving Behavior, although the R2 is moderate effect. Thus, we considered the model to be satisfactory performing in explaining the variation in the endogenous variable.

Figure 3
Path Analysis
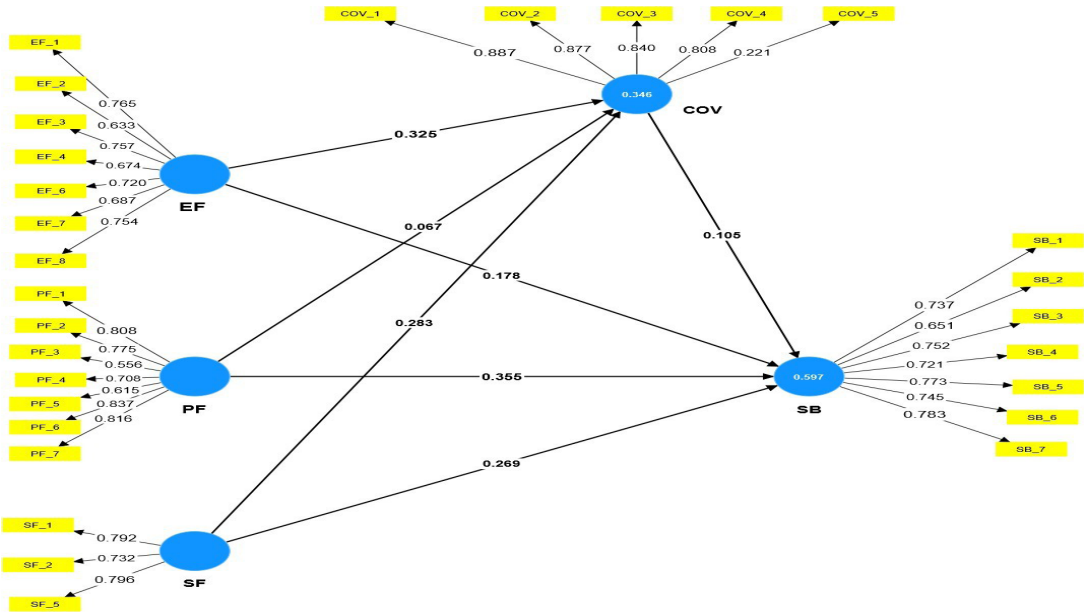
Table 6
Hypothesis Testing

Structural Path	Beta Co-efficient (b)	SD	t-value	Confidence Interval (95%)		P-Value	Conclusion
				LLCI	ULCI		
H_1: EF -> SB	0.178	0.072	2.462	0.036	0.32	0.014	Supported
H_2: SF -> SB	0.269	0.055	4.897	0.164	0.378	0.000	Supported
H_3: PF -> SB	0.355	0.087	4.087	0.182	0.52	0.000	Supported
H4: COV -> SB	0.105	0.056	1.886	-0.002	0.218	0.059	Not Supported
H_5: EF -> COV	0.325	0.084	3.886	0.163	0.488	0.000	Supported
H_6: SF -> COV	0.283	0.066	4.283	0.15	0.408	0.000	Supported
H_7:PF -> COV	0.067	0.088	0.757	-0.101	0.238	0.449	Not Supported

Mediation Analysis

A mediator variable is utilized in a mediation analysis to assess indirect interactions and determine if the mediating effect fully or partially explains the relationship between the variables that were detected (Nitzl et al., 2016). The research uses the mediation analysis to test whether there is significant impact in independent and dependent variable. The mediation analysis shows that direct and indirect effect on model. The Study has three mediations PF->COV->SB, SF->COV-> and EF-> COV->SB Are The mediations shows the significant relationship. To measure the full, partial and no mediations VAF is calculated. In this study the hypothesis Eight shows the VAF value 0.16 while the hypothesis Nine shows the VAF value of 0.10 And the hypothesis Ten shows the VAF Value of 0.01 Multiples the hypothesis shows the criteria of VAF which is (<0.20 and <0.80) which shows partial mediation. The result shows there is not mediation between EF->COV->SB, SF->COV->->SB and PF->COV->SB, where as other Seven mediation relationship shows the significant relationship shown in table.

Table 7
Mediation Analysis

Structural Path	Beta Coefficient (b)	SD	LLCI	ULCI	P-Value	Conclusion
H8: EF -> COV -> SB	0.034	0.02	0.001	0.077	0.084	Not Supported
H9: SF -> COV -> SB	0.03	0.018	0.000	0.068	0.092	Not Supported
H10: PF -> COV -> SB	0.007	0.012	-0.01	0.037	0.55	Not Supported

Discussions

The study focuses on the determinants that enhance Economic, Sociological and Psychological factors of saving behavior among working student. The hypotheses were formulated based on the relationships between the independent variables Economic, Sociology and Psychology, mediating variables Covid and the dependent variables Saving Behavior. The study formulated 10 hypotheses to assess the determinants enhancing Saving Behavior of Working Student. Among the hypothesis, H1, H2, H3, H5, H6, H8, H9 and H10 are found to be significant and others are not significant. The initial hypothesis indicated that there is a significant relationship between Economic Factors has Significant positive relationship with saving behavior. Similarly, the second hypothesis suggested that Sociology factor has significant positive relationship with saving behavior. According to the third and the fourth hypothesis, Saving Behavior has Positive relationship with Psychology Factor and covid respectively. The hypothesis 5, 6 and 7 proposed a significant positive relationship between Economic, Sociology and Psychology Factors with Covid 19. The study by Lunt and Livingstone (1991)fear of economic uncertainty and pessimism about the economy. Katona (1975, also revealed that various economic and psychological factors were significant in relation to whether a person had only a savings account or both a savings account and an investment account as compared to nothing.

Additionally, in our study, in H8, H9 and H10 we checked single Mediation effect. Hypothesis 8 shows that Covid 19 doesn't affect the Economic Factor. It shows the negative relationship with Saving Behavior. In the study hypothesis 9 and 10 also show that Covid 19 doesn't affect the psychology and sociology factors and there is a negative relationship between Saving behavior. Here is a comparison of the research with similar existing research in the same field. Gutter et al., (2012), in his study found that financial literacy is positively related to saving behavior among college students. Our study found that economic, sociological, and psychological factors all play a role in influencing saving behavior among college students. Additionally, the study found that the COVID-19 pandemic had a negative impact on saving behavior. These findings suggest that interventions that target economic, sociological, and psychological factors may be effective in promoting saving behavior among college students.

Conclusion

This study provides significant insights into the saving behavior of working students in Kathmandu Valley, shedding light on the multifaceted factors that influence their financial decisions. Demographic factors such as age, education level, income, and housing arrangement play a substantial role in shaping the saving behavior of working students. The prevalence of young working students in the 18-25 age group suggests that this demographic is more inclined to balance work and education while prioritizing savings. Economic, psychological, and sociological factors all have notable impacts on saving behavior. The study underscores that economic factors like interest rates and family debt, psychological factors such as financial literacy and risk assessment, and sociological factors like family discussions significantly affect how working students save their money. A majority of respondents experienced an increase in income during the pandemic, and this had varying effects on their saving patterns. The study identified that COVID-19 acts as a mediator between economic, psychological, sociological factors, and saving behavior. It partly mediates the relationship between these factors and saving behavior, highlighting the pandemic's indirect influence on financial decisions. The findings can inform policymakers, educators, and financial institutions in designing interventions and strategies to enhance the financial well-being of working students in Kathmandu Valley.

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