

## **Sunk Cost Fallacy: Why We Miss Opportunities and How to Make Rational Decisions**

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### **ABSTRACT**

*This paper investigates the influence of the sunk cost fallacy on Nepal's socio-political environment, particularly its impact on both government projects and everyday decisions made by Nepali citizens. We conducted three surveys, each with 200 participants, to assess how social, economic, political, and religious factors shape this cognitive bias in Nepal. Along with this, we found various studies from Nepali scholars- which we then examined and compiled to provide a comprehensive perspective on how the sunk cost fallacy affects choices made by various socio-political groups. Our findings reveal that the deeply ingrained socio-cultural norms and economic uncertainties in Nepal amplify the sunk cost fallacy, leading individuals and institutions to persist with suboptimal decisions despite significant losses. This intricate relationship between socioeconomic circumstances and cognitive biases is clarified by this study, providing insights into the wider ramifications for individual behavior and policy-making in Nepal.*

**Keywords:** cognitive bias, decision-making, influence, Nepal, rational, socio-economic, sunk cost fallacy

### **I. Introduction**

Consider a scenario where your friend purchases two concert tickets, one for herself and the other as a gift for you. On the day of the concert, it begins to rain, dampening both of your enthusiasm for attending. Despite this, one of you ultimately decides to go. In this situation, your friend is more likely to attend because she has a financial stake in the event. By choosing not to go, she would be forfeiting the money spent on her ticket, making her more inclined to attend to avoid the perceived loss. This is an example of sunk cost fallacy, and it has been steadily prominent in Nepal. Several state-funded projects like the Budhi Gandaki Hydropower Project and the Nijgadh International Airport have encountered significant delays, financial overruns,

and controversies. Despite these setbacks, the government has continued to invest in these projects. This persistent investment can be attributed to the sunk cost fallacy, a cognitive bias where decision-makers continue with a failing endeavor due to the resources already invested.

[1] In Nepal, this bias is particularly evident in the political and bureaucratic sectors, where halting a project is often seen as a political liability, leading to the continuation of unproductive initiatives. The sunk cost fallacy manifests across various demographic and cultural backgrounds in Nepal, with factors such as age, gender, education, and religious beliefs influencing individuals' susceptibility to this bias. Younger individuals, particularly those under 18, are more prone to the fallacy due to emotional investments, while older and more experienced respondents demonstrate a more balanced approach to decision-making. Additionally, cultural norms, traditions, and geographical location also play a role, with those in suburban areas or strongly adhering to religious beliefs more likely to fall prey to this bias.

The impact of the sunk cost fallacy in Nepal -however- extends beyond individual decision-making, significantly affecting state-funded projects and personal investments. In the context of government projects, the fallacy leads to the continuation of non-viable initiatives, resulting in the inefficient use of public resources and long-term economic challenges; while in personal and business investments, the fallacy results in prolonged engagement with failing ventures, driven by emotional attachment and initial investments, leading to financial strain and missed opportunities for better investments.

Our research, conducted through three extensive surveys, aims to explore the prevalence and impact of the sunk cost fallacy in Nepal, particularly in the context of state-funded projects and personal investments. We examined how demographic, cultural, and situational factors influence susceptibility to this bias and identify strategies to mitigate its effects through education, professional advice, and evidence-based decision-making. By understanding the underlying mechanisms of the sunk cost fallacy in Nepal, we hope to contribute to more rational and effective decision-making processes in both public and private sectors.

## **II. Literature Review**

[2] Evaluated the relationship between sunk costs and rational decision-making, incorporating behavioral economics perspectives. Using a case study with a survey, he found out that people often make irrational judgments based on sunk costs, consistent with past studies. The study highlights the impact of sunk costs on decision-making and explores factors influencing this behavior. It suggests that understanding sunk costs and decision context affects the strength of the sunk cost fallacy. The study concludes by discussing whether this behavior can be rational in certain contexts and suggests further research areas.

[3] Assessed whether individuals exhibit the sunk cost bias when investment is in the form of effort and not money. The experiment that was conducted with students concluded that most participants did not fall prey to the bias for short-term investment of efforts or easy tasks. However, when the time and effort invested was long, they were significantly more likely to fall into it due to effort justification and not wanting to let all the long-term effort go in vain. Their study tried to explore whether personal responsibility for the initial decision affects the bias. However, the role of personal responsibility in the bias remained unclear.

[4] Contrary to previous studies focusing on incidental affect, his research examines integral affect elicited by specific decisions. Study 1 found a positive relationship between affective reactions and the sunk-cost fallacy. Study 2 confirmed this within subjects, showing the effect is mediated by integral affective reactions rather than incidental emotions. Study 3 showed that justification mitigates the sunk-cost fallacy and negative affect. Study 4 demonstrated that high cognitive load strengthens the effect-sunk-cost relationship. The findings suggest new methods to guard against the sunk-cost fallacy by managing affect and cognitive load in decision-making contexts.

[5] Explores an innovative approach to the sunk cost fallacy by proposing the "transferable sunk cost hypothesis." Traditionally, sunk costs are viewed as past expenses that should not influence current decisions, as doing so is considered irrational. However, this paper argues that under certain conditions, sunk costs can become "transferable" and thereby rational. This idea hinges on consumer goal dynamics, suggesting that as goals evolve, so too can the classification of past expenditures from sunk costs to investments. The authors categorize consumer goals into hedonic (pleasure-driven) and utilitarian (task-oriented), with a consumer's unique goals influencing decision outcomes. They assert that failure to recognize a multi-goal framework or changes in consumer goals can lead to misidentifying rational reactions to sunk costs as fallacious. In support of this, the authors critique existing experimental interpretations of sunk cost-driven decisions, proposing that consumer motivations must be assessed over time to differentiate true sunk costs from valuable investments.

### **III. Methods**

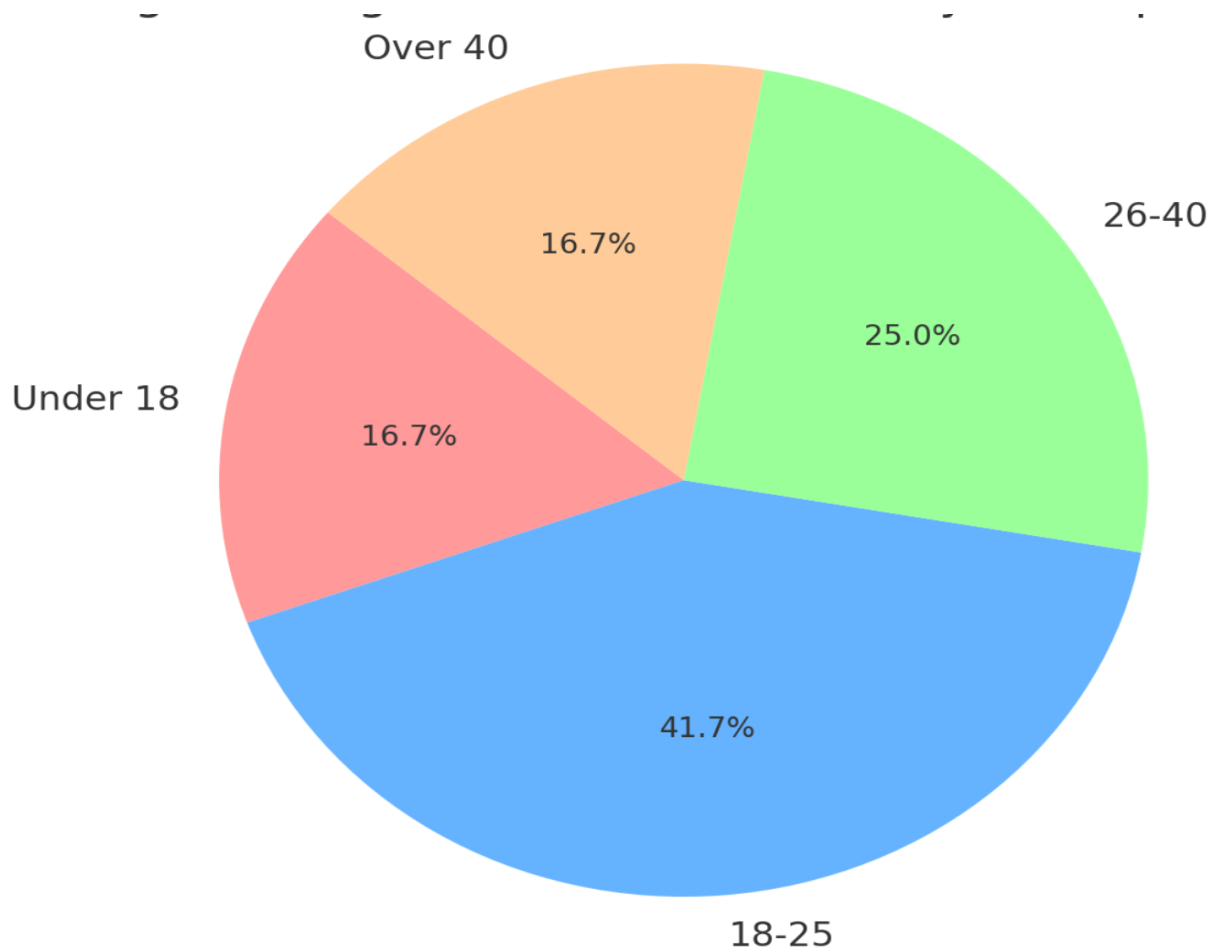
#### ***A. Participants and Study Design***

Our study involved conducting three separate surveys, each administered to over 200 participants. These surveys gathered a total of 600 responses, focusing on individuals from diverse socio-economic, geographic, and cultural backgrounds in Nepal. The participants ranged from young adults (under 18) to senior citizens (above 65), ensuring a comprehensive understanding of how demographic factors affect susceptibility to the sunk cost fallacy.

Participants were recruited through both online platforms and in-person interactions, reflecting the importance of capturing a wide range of perspectives from rural, suburban, and urban populations. The online portion of the study, which accounted for approximately 50 responses per survey, was distributed through social media platforms such as Facebook and Instagram, targeting individuals who actively engage in discussions about socio-political issues. The remaining 150 responses per survey were gathered in person using structured interviews and paper-based questionnaires. These face-to-face interactions were conducted in diverse settings such as public spaces, academic institutions, and community centers to include participants who might not have regular access to online surveys.

The chart and table below shows the age group participation and the geographical location of the respected survey participants:

**Figure 1. Age Distribution of Survey Participants**



**Table 1. Demographic Distribution of Survey Participants**

Category	Number of Participants	Percentage (%)
<b>Age</b>		
Under 18	100	16.67
18-25	250	41.67
26-40	150	25.00
Over 40	100	16.67
<b>Gender</b>		
Male	300	50.00
Female	300	50.00
<b>Geographical Location</b>		
Urban	400	66.67
Suburban	150	25.00
Rural	50	8.33

***B. Materials***

The surveys were designed to investigate how the sunk cost fallacy manifests in both personal and institutional decision-making processes. Each survey consisted of multiple sections that employed a variety of question types to elicit comprehensive responses from participants. We included scale-based questions that used a 5-point Likert scale, where participants rated the likelihood of engaging in specific behaviors. For example, questions such as "How likely are you to continue with a project despite its failure?" aimed to gauge how individuals handle investments of time, money, or effort. In addition to the scale-based questions, we incorporated multiple-choice options and open-ended questions. These were intended to probe deeper into participants' thought processes and experiences with decision-making. Participants were asked to provide personal definitions of the sunk cost fallacy, describe situations where they encountered this bias, and identify strategies they might use to avoid it.

The survey design was heavily informed by existing research on cognitive biases and decision-making, particularly studies that examined the socio-economic and cultural factors influencing such behaviors. By tailoring our questions to the Nepali context, we ensured that the scenarios and examples presented in the surveys were relevant and understandable to the participants. For

instance, we referenced local government projects like the Budhi Gandaki Hydropower Project and examined personal financial decisions commonly encountered by Nepali citizens, such as investing in land or continuing traditional family businesses.

### ***C. Study Procedure***

Data collection spanned over two weeks. We employed a hybrid approach of convenience sampling and targeted outreach to ensure diversity among our participants. Our physical surveys were conducted in urban hubs like Kathmandu, as well as semi-urban and rural regions such as Chitwan and Sindhupalchowk. This geographic diversity allowed us to capture how differing access to education, financial resources, and socio-cultural influences affect vulnerability to the sunk cost fallacy. The online surveys, distributed via social media, targeted users interested in socio-political issues, ensuring that our data included participants with varying degrees of awareness and engagement with economic decision-making processes.

In addition to the survey data, we conducted a thorough review of the existing literature, examining studies from Nepali and international scholars. These studies focused on how socio-economic, political, and religious factors shape cognitive biases such as the sunk cost fallacy. Our literature review helped contextualize our findings and informed the development of our survey questions, ensuring that we covered a broad spectrum of factors influencing decision-making in Nepal.

### ***D. Data Analysis***

After completing data collection, we used Excel to code and analyze the survey responses. Descriptive statistics were employed to assess trends in scale-based responses, identifying patterns in how various demographic groups reacted to questions about the sunk cost fallacy. Open-ended responses were categorized by common themes, allowing us to analyze participants' personal experiences with decision-making. By comparing our survey data with insights from the literature, we were able to draw conclusions about the broader societal and policy implications of the sunk cost fallacy in Nepal.

## **IV. Survey Findings**

### ***A. Survey Set 1 : Understanding Sunk Cost***

*1. Question 1 - What is your age group?* The survey reveals that the majority of respondents are 18-25, with a smaller number falling into the under 18 and 25-34 age groups. This young demographic is crucial to understanding the responses, as age significantly influences financial

decision-making. Younger individuals, particularly those under 25 may have limited experience with personal finance, investments, and the complexities of economic decision-making.

Their exposure to financial concepts might be theoretical rather than practical, which can affect how they perceive and engage with financial decisions. For example, the sunk cost fallacy—a common cognitive bias where people continue a project or investment due to the resources already committed, rather than because it's the best decision—might be less familiar or understood by this age group.

In Nepal, financial literacy among the youth is still developing, and many young people might rely on guidance from elders or cultural norms rather than established financial strategies. This reliance can make them more susceptible to biases like the sunk cost fallacy, as they may prioritize adherence to traditional advice over objective evaluation of their financial situation.

2. *Question 2* - What is your gender? The gender distribution in the survey includes both males and females, with a deliberate equal representation of men and women. Gender plays a significant role in financial decision-making, with research often indicating that men and women approach risks and investments differently. For instance, studies suggest that women tend to be more risk-averse compared to men, which could influence their likelihood of continuing an unprofitable investment.

In the context of the sunk cost fallacy, gender differences might manifest in how losses are perceived and how likely an individual is to persist with a failing investment. Women, being generally more cautious, are less inclined to fall for the sunk cost fallacy, opting instead to cut losses earlier. However, this is not a universal truth, and cultural contexts can modify these tendencies.

In Nepal, traditional gender roles may also influence financial decision-making within households. Women, particularly in more conservative or traditional settings, might not always be the primary decision-makers in financial matters, which is seen to affect their responses and the extent to which they engage with concepts like the sunk cost fallacy in this survey.

3. *Question 3* - Please state your ethnicity: The majority of respondents identify as Nepali, with specific mentions of ethnic groups like Bahun, Marwadi, and Newari. Ethnicity is a significant cultural marker that can influence financial behaviors, including risk tolerance, saving habits, and investment preferences. In Nepal, different ethnic groups have varied traditions and cultural practices that can shape their attitudes toward money and investment.



For example, the Marwadi community is traditionally known for its strong business acumen and financial conservatism, which might lead to a lower propensity to fall for the sunk cost fallacy. In contrast, other ethnic groups might have different approaches to financial risk, influenced by their cultural values and community practices.

The diversity in ethnicity among respondents suggests a range of cultural influences on financial behavior. This diversity can lead to varied responses to the sunk cost fallacy, with some ethnic groups perhaps being more prone to it due to cultural expectations around perseverance and honor, while others might be more pragmatic in their financial decisions.

*4. Question 4 - Please state your religion:* Most respondents identify as Hindu, with a few identifying as atheist or followers of other beliefs. Religion can significantly influence decision-making, particularly in financial contexts. In Nepal, where Hinduism is the dominant religion, religious beliefs often intersect with financial decisions. Hinduism, for instance, emphasizes concepts like karma, fate, and duty, which might lead individuals to view financial losses or gains as part of a larger spiritual journey.

This religious perspective could reinforce the sunk cost fallacy, as individuals might continue with a failing investment out of a sense of duty or belief that their perseverance will eventually be rewarded. Conversely, Hindu teachings on detachment might also encourage some to step back from an unprofitable investment, recognizing it as a temporary, material loss that does not define one's spiritual progress.

The presence of atheists and followers of other beliefs, though in the minority, introduces alternative perspectives that might emphasize rational, secular decision-making over religious or cultural considerations. These respondents might be more likely to approach financial decisions analytically, potentially making them less susceptible to the sunk cost fallacy.

*5. Question 5 - What is your geographical location?* The majority of respondents are from urban areas, with some from suburban regions. Geographical location is a critical factor in shaping financial behavior, as it influences access to financial resources, education, and information. Urban respondents are likely to have better access to financial services, such as banks, investment firms, and financial education programs. This access can lead to a greater understanding of financial markets and the cognitive biases that affect decision-making, such as the sunk cost fallacy.

In contrast, those from suburban or rural areas might rely more on traditional knowledge or community advice, which could perpetuate the sunk cost fallacy. For example, in rural areas, where financial literacy might be lower, individuals might stick with a failing investment due to social or familial pressure, rather than making a rational, informed decision.



The urban focus in the survey suggests that the findings may be more applicable to populations with similar access to resources and financial education. However, it also highlights the need for increased financial literacy efforts in suburban and rural areas, where the sunk cost fallacy might be more prevalent due to limited access to financial information and education.

6. *Question 6* - What is your level of education? The respondents' education levels range from high school to graduate education. Education is a critical determinant of financial literacy and the ability to make rational decisions, especially in the context of investments. Those with higher education are likely to have a better understanding of financial concepts and cognitive biases like the sunk cost fallacy. They might be more adept at using tools and frameworks to assess their investments objectively, thereby avoiding the emotional traps that lead to poor financial decisions.

On the other hand, respondents with lower levels of education might be more vulnerable to the sunk cost fallacy, as they may not be fully aware of the cognitive biases that can affect decision-making. In Nepal, where access to quality education can be uneven, this could result in significant disparities in financial behavior and outcomes. The responses suggest that while the sample includes individuals with a range of educational backgrounds, efforts to improve financial literacy across all levels of education could help mitigate the impact of the sunk cost fallacy.

7. *Question 7* - Personal Definition or Understanding: The responses to this question reveal a variety of personal interpretations of the Sunk Cost Fallacy. Some participants provided textbook definitions, indicating a solid theoretical understanding. Others described the concept through examples or personal experiences, showing a practical understanding. This suggests that while some respondents have academic knowledge of the fallacy, others relate to it through lived experiences, such as in business decisions, relationship commitments, or even day-to-day choices.

In Nepal, where practical experience often informs understanding more than formal education, this diversity in responses is expected. The range of definitions highlights the concept's relevance across different contexts and the importance of relating academic concepts to real-life situations to enhance comprehension.

8. *Question 8* - Influence on decision-making: Participants generally agreed that the Sunk Cost Fallacy influences their decision-making, with most indicating a moderate to high impact. This suggests a conscious awareness of the fallacy's effect on their behavior, even if they don't always manage to counteract it. The acknowledgment of this influence reflects an understanding that

past investments—whether emotional, financial, or time-based—can cloud judgment, leading to suboptimal decisions.

In Nepal, the cultural emphasis on perseverance and the value placed on investments, especially in familial or social obligations, might amplify the effects of the Sunk Cost Fallacy. This can result in individuals or businesses continuing down a less profitable path because of previous investments, despite recognizing the need for change.

*9. Question 9 - Frequency of encounter:* The responses likely indicate varying frequencies at which participants encounter the Sunk Cost Fallacy in their decision-making processes. Some may face it regularly, especially those in business or financial roles, while others encounter it less frequently. The data likely shows that while not everyone is constantly aware of the fallacy, it is a common experience when making significant decisions.

In Nepal, this frequency may be influenced by the economic environment and the nature of decisions people are making. For example, entrepreneurs or those involved in investments might encounter the fallacy more frequently, as they are often making decisions about whether to continue or abandon a project. In contrast, individuals in more stable, routine jobs might face the fallacy less often.

*10. Question 10 - Identification in Scenarios:* Participants generally succeeded in identifying the Sunk Cost Fallacy in hypothetical scenarios, indicating a solid grasp of the concept. This ability to apply theoretical knowledge to practical situations is crucial for understanding how the fallacy manifests in real life. The correct identification in most cases suggests that participants are not only aware of the fallacy but can also recognize it when making decisions.

In Nepal, where decision-making might be heavily influenced by social and cultural factors, recognizing the Sunk Cost Fallacy in scenarios suggests a potential for better decision-making practices. However, the challenge lies in applying this recognition consistently in personal and professional life, especially when social pressures or traditional values are at play.

*11. Question 11 - Strategies to Avoid the Fallacy:* The responses indicate diverse strategies for avoiding the Sunk Cost Fallacy, with a common theme being the importance of focusing on future benefits rather than past investments. This shows that participants understand the need to reframe their decision-making processes to avoid being trapped by previous commitments. However, the diversity in strategies also suggests that there is no one-size-fits-all approach, and individuals may need to tailor their strategies to their specific contexts.

In Nepal, where decision-making might be influenced by long-standing commitments and investments, the challenge of avoiding the Sunk Cost Fallacy can be significant. The responses

suggest that while the concept is understood, the application of strategies to avoid it might require more education and awareness, especially in areas like business management and personal finance.

*12. Question 12 - Prioritization in Decision-Making:* The responses suggest that participants generally prioritize rational decision-making over emotional investment, which is a positive indicator of their ability to avoid the Sunk Cost Fallacy. However, the degree to which rationality is prioritized may vary, with some participants still allowing emotional factors to influence their decisions. This indicates a recognition of the importance of rationality but also highlights the challenge of consistently applying it in practice.

In Nepal, where emotional and social factors often play a significant role in decision-making, this prioritization of rationality is encouraging. It suggests a shift towards more logical and economically sound decisions, although the struggle to maintain this approach in the face of emotional or social pressures is likely still present.

*13. Question 13 - Belief in Awareness Impact:* Most participants believe that awareness of the Sunk Cost Fallacy can lead to better decision-making, although some express skepticism about its practical impact. This suggests a general belief in the power of awareness to improve decision-making, but also an acknowledgment of the difficulties in overcoming ingrained habits and biases. The skepticism may reflect a realistic understanding of the challenges involved in changing decision-making patterns, even when the fallacy is recognized.

In Nepal, where awareness of psychological biases in decision-making might be less widespread, this belief in the impact of awareness is significant. It suggests that educational efforts to raise awareness about the Sunk Cost Fallacy could have a meaningful impact on improving decision-making, although the practical application of this awareness may require additional support and strategies.

*14. Question 14 - Impact of Emotional and Financial Investment:* Participants generally agree that the Sunk Cost Fallacy is more likely to affect decisions involving significant emotional or financial investment. This consensus highlights the role of emotional and financial stakes in exacerbating the fallacy, making it harder for individuals to make rational decisions. The recognition of this pattern suggests an awareness of the specific contexts in which the fallacy is most dangerous and a potential for targeted strategies to counteract it in these situations.

In Nepal, where financial investments can carry significant weight due to economic conditions, and emotional investments are often tied to family and social obligations, this acknowledgment is crucial. It points to the need for strategies that specifically address the challenges posed by

high-stakes decisions, helping individuals and businesses avoid being trapped by their past investments.

*15. Question 15 - Application in Various Scenarios:* Participants generally identified the Sunk Cost Fallacy in various scenarios, showing an ability to apply the concept in different contexts. This suggests a strong practical understanding of the fallacy and its implications, indicating that participants are capable of recognizing and potentially avoiding the fallacy when faced with real-world decisions. However, the consistency of this application may vary, and there may be scenarios where the fallacy is less easily recognized or more difficult to avoid.

In Nepal, the ability to apply this understanding in various scenarios is particularly important, given the diversity of challenges individuals and businesses face. This skill can help in making more rational decisions in areas such as investments, education, and long-term commitments, where the fallacy is most likely to occur.

*16. Question 16 - The Role of Past Investment in Decision-Making:* The responses likely show varying degrees of agreement on how much past investments influence current decision-making. Many participants may acknowledge that past investments play a significant role, which is a key characteristic of the Sunk Cost Fallacy. This recognition is important because it suggests that individuals are aware of how previous commitments can cloud their judgment, leading to decisions that prioritize sunk costs over potential benefits.

In Nepal, the impact of past investments on decision-making might be even more pronounced due to cultural values that emphasize commitment, perseverance, and honoring past decisions. The tendency to "stick with it" despite better alternatives could be a common theme, reflecting a deeper entrenchment of the Sunk Cost Fallacy in both personal and professional contexts.

*17. Question 17 - Experience with the Sunk Cost Fallacy in Personal Life:* Participants likely shared personal experiences where they encountered the Sunk Cost Fallacy, which provides valuable insight into how this cognitive bias manifests in everyday life. Common themes might include staying in unsatisfying relationships, continuing education or career paths despite losing interest, or persisting with failing investments or projects. These real-life examples underscore the pervasive nature of the fallacy and how it can affect various aspects of life.

In Nepal, where familial and social expectations can strongly influence personal decisions, the Sunk Cost Fallacy might be particularly evident in areas like marriage, education, and business. The cultural emphasis on maintaining social harmony and fulfilling familial duties can make it difficult to abandon past commitments, even when doing so would lead to better outcomes.

*18. Question 18 - Sunk Cost Fallacy in Business Decisions:* The responses likely reveal how participants recognize and address the Sunk Cost Fallacy in business settings. Many may identify with scenarios where businesses continue investing in failing projects due to the significant resources already spent. This awareness is critical, as it highlights the practical implications of the fallacy in the business world, where it can lead to substantial financial losses if not properly managed.

In Nepal, the business environment can be challenging, with limited resources and high stakes, making the Sunk Cost Fallacy a significant risk. Entrepreneurs and business owners might be particularly prone to this fallacy, as the emotional and financial investment in their ventures can make it difficult to cut losses and pivot to more profitable opportunities. The responses might reflect a growing awareness of this risk and the importance of rational decision-making in business.

*19. Question 19 - Strategies for Overcoming the Sunk Cost Fallacy:* Participants likely suggested various strategies for overcoming the Sunk Cost Fallacy, with common approaches including focusing on future outcomes, setting clear decision-making criteria, and seeking external advice. These strategies reflect an understanding that overcoming the fallacy requires conscious effort and often involves changing one's mindset or decision-making framework.

In Nepal, where decisions can be heavily influenced by social expectations and emotional factors, these strategies might be particularly important. The emphasis on seeking external advice could reflect the cultural value placed on community and collective decision-making, suggesting that involving others in the decision-making process can help mitigate the impact of the Sunk Cost Fallacy.

*20. Question 20 - Perception of Loss Aversion and Its Connection to the Sunk Cost Fallacy:* The responses likely indicate a strong awareness of the connection between loss aversion and the Sunk Cost Fallacy. Many participants may recognize that the fear of losing what has already been invested can drive them to continue with a failing course of action, even when it's not the most rational choice. This awareness is crucial, as it highlights one of the core psychological drivers behind the fallacy.

In Nepal, where economic conditions can make financial losses particularly painful, the connection between loss aversion and the Sunk Cost Fallacy might be even more pronounced. Individuals and businesses may be more inclined to avoid acknowledging losses, leading them to persist with unprofitable decisions. The responses might reflect an understanding of this dynamic and a recognition of the need to address it in order to make more rational decisions.

21. *Question 21 - Influence of Social and Cultural Factors on the Sunk Cost Fallacy:* Participants likely discussed how social and cultural factors influence the Sunk Cost Fallacy, with many pointing to the pressure to conform to societal expectations or to maintain face in the community. These influences can exacerbate the fallacy, making it harder for individuals to walk away from commitments, even when it's in their best interest to do so.

In Nepal, the influence of social and cultural factors on decision-making is significant. The emphasis on family honor, social standing, and community relationships can make it difficult to abandon past investments, especially when such actions might be perceived as failure or betrayal. The responses likely reflect this challenge, highlighting the need for greater awareness and strategies to counteract these pressures in order to make more rational decisions.

22. *Question 22 - Impact of Education and Awareness on Mitigating the Sunk Cost Fallacy:* The responses likely show a strong belief in the power of education and awareness to mitigate the Sunk Cost Fallacy. Many participants may agree that learning about the fallacy and its effects can lead to better decision-making, suggesting a recognition of the importance of psychological education in improving judgment and behavior.

In Nepal, where access to education and information might be uneven, this belief in the value of education is particularly important. It suggests that raising awareness about the Sunk Cost Fallacy, through formal education or public campaigns, could significantly improve decision-making at both individual and societal levels. The responses might reflect a desire for more resources and opportunities to learn about cognitive biases and how to overcome them.

23. *Question 23 - Personal Strategies for Avoiding the Sunk Cost Fallacy:* Participants likely shared personal strategies for avoiding the Sunk Cost Fallacy, with common themes including setting clear goals, regularly reassessing investments, and seeking input from others. These strategies reflect a proactive approach to decision-making, where individuals are consciously trying to avoid the pitfalls of the fallacy by maintaining flexibility and openness to change.

In Nepal, where the pressure to honor past commitments can be strong, these personal strategies are particularly valuable. The emphasis on reassessment and seeking external input suggests a recognition of the need to counteract the tendency to persist with failing investments by introducing more objective criteria and perspectives into the decision-making process. The responses might indicate a growing awareness of the importance of being adaptable and willing to change course when necessary.

24. *Question 24 - Perceived Difficulty in Overcoming the Sunk Cost Fallacy:* The responses likely indicate that many participants find it challenging to overcome the Sunk Cost Fallacy, despite being aware of it. This difficulty is understandable, given the deep psychological and



emotional factors involved in the fallacy. The recognition of this challenge suggests that while awareness is a crucial first step, it is not always sufficient to change behavior.

In Nepal, the perceived difficulty in overcoming the fallacy might be exacerbated by cultural norms and economic pressures that make it hard to abandon past investments. The responses may reflect a realistic understanding of the obstacles to making rational decisions and the need for more support, whether through education, community engagement, or professional guidance, to help individuals and businesses overcome these challenges.

25. *Question 25 - Long-Term Consequences of the Sunk Cost Fallacy:* Participants likely discussed the long-term consequences of the Sunk Cost Fallacy, with many recognizing that persisting with unprofitable decisions can lead to significant losses, both financially and emotionally. These consequences might include wasted resources, missed opportunities, and increased stress or dissatisfaction. The awareness of these long-term effects is important, as it highlights the potential cost of failing to address the fallacy.

In Nepal, where resources can be limited and the stakes of decision-making high, the long-term consequences of the Sunk Cost Fallacy can be particularly severe. The responses might reflect an understanding of these risks and a recognition of the importance of making more rational, forward-looking decisions. This awareness could drive greater efforts to avoid the fallacy, both at the individual level and within organizations or communities.

### ***B. Survey Set 2 : Personal and Business Investments***

1. *Question 1 - Awareness of the Sunk Cost Fallacy:* The responses likely indicate varying levels of awareness of the Sunk Cost Fallacy. Some participants may be highly familiar with the term, while others might have only a basic understanding or may not have heard of it at all. This variability suggests that while the concept is recognized by some, there is a need for broader education to ensure a wider understanding of how the fallacy affects decision-making.

In Nepal, where access to psychological and economic education might be limited, this variability in awareness is expected. Those with a background in business, economics, or psychology may be more familiar with the concept, while others might need more exposure to such ideas to fully grasp their significance.

2. *Question 2 - Understanding of the Sunk Cost Fallacy in Practice:* Participants likely provided examples or descriptions of how they understand the Sunk Cost Fallacy in practical terms. This could include references to staying in a failing relationship, continuing with an unprofitable project, or making additional investments in a business despite poor returns. These responses



reveal the extent to which participants can apply the theoretical concept to real-life situations, demonstrating a practical understanding.

In Nepal, where personal and business decisions are often influenced by long-term commitments and cultural expectations, the ability to recognize the Sunk Cost Fallacy in practice is crucial. The responses might show that while some individuals are adept at identifying the fallacy in their own lives, others may struggle to apply the concept, especially when emotional or social factors are at play.

3. *Question 3 - Influence of Emotional Investment on Decision-Making:* Responses likely indicate that emotional investment plays a significant role in decision-making for many participants. This suggests that even when individuals are aware of the Sunk Cost Fallacy, their emotional attachment to past decisions can make it difficult to act rationally. The acknowledgment of this influence highlights the challenge of overcoming emotional biases in order to make more logical decisions.

In Nepal, where familial and social relationships often involve deep emotional commitments, the influence of emotional investment on decision-making might be even more pronounced. The responses might reflect a recognition of this challenge, with participants acknowledging that emotional ties can sometimes lead them to make suboptimal decisions.

4. *Question 4 - The Role of Financial Investment in Perpetuating the Sunk Cost Fallacy:* Participants likely recognized that financial investments play a significant role in perpetuating the Sunk Cost Fallacy. Many may agree that the more money they have invested in a decision, the harder it is to abandon that decision, even when it no longer makes sense to continue. This recognition is crucial, as it underscores one of the key drivers of the fallacy: the desire to avoid financial loss.

In Nepal, where financial resources may be scarce, the pressure to avoid loss is likely intense. The responses might reflect the high stakes involved in financial decision-making, with participants acknowledging that the fear of losing money can lead them to continue investing in unprofitable ventures.

5. *Question 5 - Impact of Social Pressure on Decision-Making:* The responses likely indicate that social pressure plays a significant role in decision-making, particularly in perpetuating the Sunk Cost Fallacy. Participants may describe how the expectations of family, friends, or colleagues can make it difficult to back out of a commitment, even when continuing is not the best option. This suggests that social dynamics can significantly influence how individuals perceive and respond to sunk costs.

In Nepal, where social networks and community ties are strong, the impact of social pressure on decision-making is likely substantial. The responses might reflect a cultural emphasis on maintaining social harmony and fulfilling obligations, even at the cost of personal or financial well-being. This can make it particularly challenging to overcome the Sunk Cost Fallacy when social expectations are involved.

*6. Question 6 - Strategies for Reducing the Impact of the Sunk Cost Fallacy:* Participants likely suggested various strategies for reducing the impact of the Sunk Cost Fallacy, such as focusing on future outcomes, setting clear criteria for decision-making, or seeking advice from others. These strategies indicate an understanding that overcoming the fallacy requires a shift in perspective, moving away from past investments and toward a more forward-looking approach.

In Nepal, where decision-making can be influenced by traditional values and long-standing commitments, these strategies might be particularly important. The responses might reflect a growing awareness of the need to adopt more rational decision-making practices, even when faced with the pressure to honor past investments. The emphasis on seeking external advice could also highlight the importance of community and collective decision-making in overcoming the fallacy.

*7. Question 7 - Frequency of Encountering the Sunk Cost Fallacy in Daily Life:* The responses likely indicate that many participants frequently encounter the Sunk Cost Fallacy in their daily lives, particularly in decisions related to relationships, work, or finances. This suggests that the fallacy is a common cognitive bias that affects a wide range of decisions, from minor day-to-day choices to major life decisions.

In Nepal, where economic and social pressures can be intense, the frequency of encountering the Sunk Cost Fallacy might be high. The responses might reflect the challenges individuals face in making decisions that involve significant past investments, particularly in areas where the stakes are high, such as education, career, and family obligations.

*8. Question 8 - Perceived Control Over Decision-Making:* The responses likely indicate varying levels of perceived control over decision-making, with some participants feeling that they have a strong ability to make rational choices, while others may feel that their decisions are often influenced by past investments or external pressures. This variability suggests that while some individuals feel confident in their ability to overcome the Sunk Cost Fallacy, others may struggle to do so.

In Nepal, where decision-making can be heavily influenced by cultural and social factors, perceived control over decisions might be limited. The responses might reflect this challenge,

with participants acknowledging that despite their best efforts, they often find themselves swayed by the weight of past commitments or the expectations of others.

*9. Question 9 - Impact of Education on Understanding the Sunk Cost Fallacy:* Participants likely believe that education plays a crucial role in understanding and mitigating the Sunk Cost Fallacy. Many may agree that learning about cognitive biases and decision-making processes can lead to better outcomes, suggesting that education is seen as a key tool for improving judgment and behavior.

In Nepal, where access to education may vary, the belief in the importance of education for understanding the Sunk Cost Fallacy is particularly significant. The responses might reflect a desire for more educational resources and opportunities to learn about psychological biases, both in formal settings and through public awareness campaigns. This recognition underscores the value of education in fostering more rational decision-making practices.

*10. Question 10 - Long-Term Consequences of the Sunk Cost Fallacy in Business:* Participants likely discussed the long-term consequences of the Sunk Cost Fallacy in business, with many recognizing that continuing to invest in failing projects or ventures can lead to significant financial losses and missed opportunities. These responses highlight the importance of making timely, rational decisions in business, where the cost of persisting with unprofitable investments can be particularly high.

In Nepal, where the business environment can be challenging and resources limited, the long-term consequences of the Sunk Cost Fallacy are likely to be severe. The responses might reflect an awareness of these risks and a recognition of the need for more rational decision-making practices in business. This could include adopting more flexible strategies, regularly reassessing investments, and being willing to cut losses when necessary.

*11. Question 11 - Perception of the Sunk Cost Fallacy in Relationships:* The responses likely reflect participants' perceptions of how the Sunk Cost Fallacy influences their decisions in personal relationships. Many may recognize that they continue investing time, energy, or resources in relationships that are no longer fulfilling or beneficial, simply because they have already invested so much. This acknowledgment is important as it highlights how the fallacy can extend beyond financial or business contexts into deeply personal areas of life.

In Nepal, where social and familial bonds are highly valued, the Sunk Cost Fallacy might be particularly pronounced in relationships. The responses may reveal that individuals feel compelled to maintain relationships due to cultural expectations, social pressure, or fear of social judgment, even when it might be healthier to move on. This can lead to prolonged emotional distress and missed opportunities for more fulfilling connections.

*12. Question 12 - Impact of the Sunk Cost Fallacy on Career Decisions:* Participants likely shared experiences or opinions on how the Sunk Cost Fallacy affects their career decisions. Common themes might include staying in a job or career path that no longer aligns with their interests or goals because of the time, effort, or education already invested. This highlights how the fallacy can trap individuals in unfulfilling careers, preventing them from pursuing more rewarding opportunities.

In Nepal, where job stability and career success are often seen as indicators of personal and family honor, the pressure to continue with a chosen career path despite dissatisfaction might be intense. The responses might reflect the challenges individuals face in making career changes, particularly when they have invested heavily in education or have family expectations to fulfill. This underscores the need for greater support and guidance in making career decisions that prioritize long-term satisfaction over sunk costs.

*13. Question 13 - Strategies for Recognizing the Sunk Cost Fallacy:* Participants likely suggested strategies for recognizing the Sunk Cost Fallacy in their decision-making processes. Common strategies might include taking a step back to objectively assess the situation, seeking input from others, or considering the potential future benefits rather than past investments. These responses indicate an understanding that recognizing the fallacy is the first step toward overcoming it.

In Nepal, where decisions can be heavily influenced by cultural norms and social expectations, recognizing the Sunk Cost Fallacy might require conscious effort and a willingness to challenge traditional ways of thinking. The responses might reflect a desire for tools and frameworks that can help individuals identify when they are falling into the trap of the fallacy, as well as the importance of education and awareness in fostering this recognition.

*14. Question 14 - Influence of Cultural Expectations on the Sunk Cost Fallacy:* The responses likely indicate that cultural expectations play a significant role in perpetuating the Sunk Cost Fallacy. Many participants may feel that their decisions are influenced by the need to conform to cultural norms, such as maintaining family honor, fulfilling social obligations, or adhering to traditional values. This suggests that cultural factors can make it more difficult to recognize and overcome the fallacy.

In Nepal, where cultural expectations are deeply ingrained, the influence of these factors on decision-making is likely substantial. The responses might reflect the tension between individual desires and societal expectations, with participants acknowledging that cultural pressure can lead them to continue with decisions that are no longer in their best interest. This highlights the importance of addressing cultural factors when seeking to reduce the impact of the Sunk Cost Fallacy.

*15. Question 15 - Effectiveness of Professional Advice in Overcoming the Sunk Cost Fallacy:* Participants likely expressed their views on the effectiveness of seeking professional advice, such as from financial advisors, counselors, or mentors, in overcoming the Sunk Cost Fallacy. Many may believe that professional guidance can help them make more rational decisions by providing an objective perspective and helping them weigh the pros and cons without emotional attachment.

In Nepal, where professional advice might not be as readily accessible or commonly sought after, the responses might reflect a mixed perspective. Some participants may recognize the value of professional advice, particularly in financial or career-related decisions, while others might rely more on family or community input. This suggests that increasing access to and awareness of professional services could play a crucial role in helping individuals overcome the Sunk Cost Fallacy.

*16. Question 16 - The Role of Past Failures in Future Decision-Making:* The responses likely indicate how past failures influence future decision-making, with many participants acknowledging that their previous mistakes or failures make them more cautious in their current decisions. This can be both a positive and negative influence: while learning from past mistakes is crucial, it can also lead to an overemphasis on avoiding loss, which perpetuates the Sunk Cost Fallacy.

In Nepal, where past failures might carry significant social stigma, the influence of these experiences on future decisions can be profound. The responses might reflect a fear of repeating past mistakes, leading individuals to stick with known but unproductive paths rather than risk new opportunities. This highlights the need for a balanced approach that values learning from the past without letting it unduly constrain future choices.

*17. Question 17 - Long-Term Personal Consequences of the Sunk Cost Fallacy:* Participants likely discussed the long-term personal consequences of the Sunk Cost Fallacy, with many recognizing that continuing with unproductive decisions can lead to prolonged dissatisfaction, missed opportunities, and emotional stress. These responses highlight the personal toll that the fallacy can take, particularly when individuals feel trapped by their past investments.

In Nepal, where personal and professional life decisions are closely intertwined with social and familial expectations, the long-term consequences of the Sunk Cost Fallacy can be particularly significant. The responses might reflect a deep awareness of how the fallacy can affect overall life satisfaction and mental health, emphasizing the importance of making decisions that align with one's current goals and values, rather than being driven by past commitments.

*18. Question 18 - Impact of Peer Influence on Decision-Making:* The responses likely indicate that peer influence plays a considerable role in decision-making, particularly in reinforcing the Sunk Cost Fallacy. Participants may describe how the opinions and behaviors of their peers can make it difficult to abandon a decision, especially when doing so would go against group norms or expectations.

In Nepal, where community and social networks are central to personal and professional life, peer influence is likely a powerful factor in decision-making. The responses might reflect the challenge of balancing individual judgment with the need to maintain social harmony and group cohesion. This highlights the importance of developing strategies to manage peer influence, such as seeking diverse perspectives or focusing on individual goals.

*19. Question 19 - The Role of Rational Thinking in Overcoming the Sunk Cost Fallacy:* Participants likely expressed their views on the role of rational thinking in overcoming the Sunk Cost Fallacy, with many agreeing that a rational, objective approach is crucial for making sound decisions. This might include using decision-making frameworks, setting clear criteria for evaluating options, and regularly reassessing investments without emotional bias.

In Nepal, where decision-making can be influenced by emotional, cultural, and social factors, the role of rational thinking is particularly important. The responses might reflect a recognition that while rational thinking is essential, it can be difficult to apply consistently in the face of strong cultural and emotional pressures. This suggests that fostering rational decision-making practices through education and awareness could be key to reducing the impact of the Sunk Cost Fallacy.

*20. Question 20 - Potential for Behavioral Change in Response to the Sunk Cost Fallacy:* Participants likely discussed their beliefs about the potential for behavioral change in response to the Sunk Cost Fallacy, with some expressing optimism about their ability to change and others acknowledging the difficulty of doing so. These responses highlight the tension between awareness and action: while many individuals recognize the fallacy and its effects, changing behavior to avoid it can be challenging.

In Nepal, where traditional values and long-standing commitments can strongly influence behavior, the potential for change might be seen as both necessary and difficult. The responses might reflect a desire for greater support in making rational decisions, such as through community programs, counseling, or educational initiatives. This underscores the importance of creating environments that encourage and support behavioral change, making it easier for individuals to overcome the Sunk Cost Fallacy.



### ***C. Survey Set 3: Mitigation Measures***

1. *Question 1* - Understanding of Sunk Cost fallacy: The responses indicate a mixed but generally positive understanding of the Sunk Cost Fallacy among participants. A significant proportion of respondents show awareness of the concept, with many recognizing its relevance to decision-making. This suggests that the concept, though somewhat technical, is accessible to a broad audience. However, the depth of understanding varies, with some participants clearly identifying the fallacy's impact on personal and professional decisions, while others have a more superficial grasp.

In the context of Nepal, where educational resources may be unevenly distributed, this mixed awareness is expected. The exposure to concepts like the Sunk Cost Fallacy might be higher among those with access to business or economics education, or those engaged in entrepreneurial activities. For those less familiar with the term, the understanding might be intuitive, recognizing the behavior without knowing the formal label.

2. *Question -2* Have you ever invested in stocks, bonds, or mutual funds?: Responses indicate that some participants have experience with investments, while others do not. This question gauges the respondents' direct experience with financial markets, which is crucial for understanding their susceptibility to the sunk cost fallacy. Those with investment experience might have a more practical understanding of the risks involved and the psychological traps that can lead to poor decision-making. They might be more familiar with the idea of cutting losses and reassessing investments based on current and future potential, rather than past commitments.

For respondents without investment experience, the concept of the sunk cost fallacy might be more abstract, making them more likely to rely on emotional reasoning or advice from others. In Nepal, where formal financial markets are still growing, many individuals might be new to investing, which could increase their vulnerability to cognitive biases like the sunk cost fallacy. This question highlights the importance of financial education and the need for individuals to develop a clear understanding of investment principles before entering the market.

a. *Question 2* - If yes, what type of investments have you made? The data on the types of investments made by respondents is incomplete, but the general trend in Nepal includes investments in real estate, gold, and small-scale stocks. These traditional forms of investment are often seen as safer and more culturally acceptable, particularly in a society where tangible assets like land and gold have long been considered symbols of wealth and stability.

However, these types of investments can also lead to a stronger attachment to the investment due to their cultural and emotional significance. For example, individuals might continue to invest in real estate even when it's not performing well, because of the cultural belief in land as a secure



and long-term investment. This attachment can make it harder to recognize when it's time to cut losses, thereby increasing susceptibility to the sunk cost fallacy.

The responses suggest that while some respondents may have diversified their investments, others may rely on more traditional, less liquid assets. This reliance on traditional investments might increase the emotional attachment to these assets, making it more difficult to make rational decisions when those investments are underperforming.

*3. Question 3* - Do you believe in continuing with an investment even when it's not performing well? This question directly probes the respondent's susceptibility to the sunk cost fallacy. Respondents who believe in continuing with an underperforming investment likely do so due to emotional attachment, fear of loss, or a hope that the situation will improve over time. This belief is central to the sunk cost fallacy, where individuals allow past investments (time, money, effort) to dictate future decisions, even when those investments are not yielding the desired returns.

In Nepal, where social and cultural norms often emphasize perseverance and respect for past efforts, this mindset could be particularly strong. There might be a cultural bias towards "seeing things through," which could make it difficult for individuals to abandon an investment even when it's clear that it's not the rational choice. This behavior can lead to continued losses and missed opportunities for better investments. The responses suggest that many individuals may struggle with letting go of a failing investment, underscoring the need for education on rational decision-making and the importance of assessing investments based on current and future potential rather than past commitments.

*4. Question 4* - Do you think that your cultural background affects your risk tolerance in investments? This question examines whether respondents recognize the influence of their cultural background on their financial behavior, specifically risk tolerance. Those who answered "Yes" are likely aware that their decisions are shaped by cultural values, norms, and expectations. In a context like Nepal, where cultural influences are deeply embedded in daily life, this acknowledgment is significant.

Nepalese culture, which is often characterized by strong family ties, community influence, and a respect for tradition, can significantly impact financial decisions. For instance, individuals from conservative backgrounds may be more risk-averse, preferring safer, more traditional investments like real estate or gold. Conversely, those from more progressive or business-oriented communities might be more open to taking calculated risks in the stock market or other modern financial instruments.

The fact that some respondents do not see a link between their cultural background and their risk tolerance could indicate a lack of awareness of these subtle influences, or a belief in their ability to make independent decisions.

However, cultural factors often operate unconsciously, affecting decision-making even when individuals believe they are acting purely rationally. This question highlights the importance of self-awareness in financial decision-making and the need to consider how cultural backgrounds might unconsciously shape one's approach to risk.

5. *Question 5* - Do you seek advice before making financial decisions? The question explores whether respondents seek external input before making financial decisions. Those who answered "Yes" might rely on advice from family, friends, financial advisors, or other trusted sources. Seeking advice is a double-edged sword in the context of the sunk cost fallacy. On one hand, it can provide a broader perspective and help mitigate the impact of cognitive biases by incorporating different viewpoints. On the other hand, if the advice comes from sources that themselves are influenced by traditional norms or emotional reasoning, it might reinforce the sunk cost fallacy rather than challenge it.

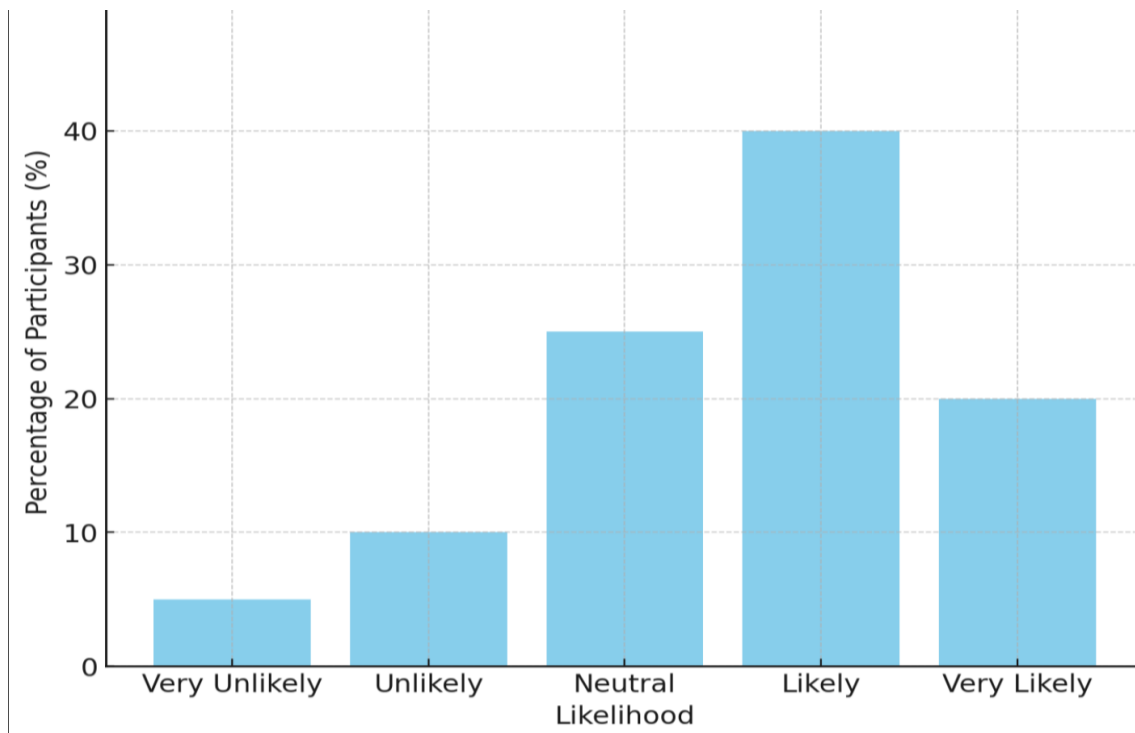
In Nepal, where familial and community ties are strong, financial decisions are often made collectively or heavily influenced by advice from close-knit social networks. This collective decision-making process can sometimes perpetuate the sunk cost fallacy, especially if the advice encourages sticking with an investment due to past commitments or cultural beliefs. However, if the advice comes from financially literate individuals or professionals, it could help respondents make more rational decisions by focusing on the current and future potential of investments rather than past expenditures.

The responses suggest that many individuals recognize the value of seeking advice but also highlights the importance of the quality and source of that advice. To reduce the impact of the sunk cost fallacy, it is crucial for individuals to seek advice from knowledgeable and objective sources who can help them make rational decisions. The table below shows how likely participants were to commit to their failing project.

6. *Question 6* - How often do you reassess your investments? The frequency with which respondents reassess their investments is a critical factor in avoiding the sunk cost fallacy. Regular reassessment allows investors to objectively evaluate the performance of their investments and make informed decisions about whether to continue, increase, or liquidate their holdings. Respondents who reassess their investments frequently (e.g., monthly or quarterly) are more likely to make rational decisions based on current data, which can help them avoid the emotional traps associated with the sunk cost fallacy.

On the other hand, those who rarely reassess their investments might be more prone to sticking with underperforming assets out of inertia or a lack of awareness of their current performance. This behavior can lead to prolonged losses, as individuals continue to invest in something that no longer aligns with their financial goals or market conditions.

**Figure 2. Likelihood of Continuing A Failing Project**



In Nepal, where financial literacy is still developing, the habit of regularly reassessing investments might not be as widespread. This could be due to a variety of factors, including a lack of access to financial information, cultural norms that discourage frequent changes in financial plans, or simply a lack of awareness of the importance of reassessment. The responses indicate that while some individuals might have established the habit of regular reassessment, others may benefit from increased education on the importance of monitoring and adjusting their investments over time.

7. *Question 7 - The Role of Rational Thinking in Overcoming the Sunk Cost Fallacy:* This question is designed to gauge respondents' awareness of the importance of rational thinking in overcoming the sunk cost fallacy. Respondents who strongly agree with the importance of rational thinking likely understand that objective decision-making, free from emotional influence, is crucial for financial success. They might recognize that a structured approach to

evaluating investments—such as using decision-making frameworks, setting clear criteria, and regularly reassessing investments—can help them avoid the traps of the sunk cost fallacy.

In the context of Nepal, where decision-making can be heavily influenced by emotional, cultural, and social factors, the role of rational thinking is particularly important. However, applying rational thinking consistently can be challenging, especially when faced with strong cultural and emotional pressures. For instance, the cultural expectation to persevere and honor past commitments might conflict with the rational decision to cut losses and move on from a failing investment.

The responses suggest that while there is an acknowledgment of the importance of rational thinking, there may be gaps in applying it consistently in practice. This highlights the need for greater emphasis on financial education and the development of decision-making skills that prioritize objective analysis over emotional considerations.

8. *Question 8* - What factors do you consider most important when making financial decisions? This open-ended question allows respondents to identify the factors they prioritize when making financial decisions. Common factors might include potential return on investment, risk level, past performance, market trends, and advice from trusted sources. The variety of factors mentioned by respondents can provide insights into how they approach decision-making and their susceptibility to the sunk cost fallacy.

For instance, respondents who prioritize past performance may be more prone to the sunk cost fallacy, as they might continue investing based on previous commitments rather than current and future potential. Conversely, those who focus on risk and market trends might be better equipped to make rational decisions that are less influenced by past expenditures.

In Nepal, factors such as cultural expectations, social status, and community advice might also play a significant role in financial decision-making. These factors can sometimes lead to decisions that are more emotionally driven, such as continuing with a failing investment to avoid losing face or to honor family traditions.

The responses to this question suggest that while some individuals may prioritize rational, objective factors in their decision-making, others may still be influenced by emotional or cultural considerations. This underscores the importance of promoting financial literacy and encouraging individuals to base their financial decisions on objective criteria that align with their long-term goals and current market conditions.

## **V. Research Findings on State Funded Projects**

***A. Prevalence of the Sunk Cost Fallacy in Government Projects:***

The sunk cost fallacy is a persistent issue in state-funded projects across Nepal, leading to the continuation of unproductive initiatives despite clear signs of inefficiency or failure. This bias is often driven by the reluctance of decision-makers to acknowledge past mistakes, particularly when significant resources have already been committed. The political and bureaucratic environment in Nepal further exacerbates this issue, where halting a project is often perceived as a political liability.

***B. Impact on Project Continuation and Escalation:***

The sunk cost fallacy has led to the escalation and continuation of several high-profile infrastructure projects in Nepal. Notable examples include:

- **Budhi Gandaki Hydropower Project:** This hydropower project has faced multiple delays, political interference, and questions regarding its financial viability. Despite these challenges, the government has continued to push forward with the project, primarily due to the significant investments already made and the political implications of canceling it. The repeated shifts in development strategy and the involvement of multiple contractors have only escalated the costs, making the project emblematic of the sunk cost fallacy in Nepal's hydropower sector.
- **Nijgadh International Airport:** Initially envisioned as a solution to alleviate congestion at Kathmandu's Tribhuvan International Airport, the Nijgadh Airport project has been mired in controversy, environmental concerns, and legal challenges. Despite the mounting evidence that the project may not be economically viable or environmentally sustainable, the government has continued to allocate funds. The decision to press on is largely influenced by the substantial resources already committed and the political promise of delivering a major infrastructure project.
- **Gautam Buddha International Cricket Stadium:** This stadium project in Chitwan, driven by high public expectations and political backing, has also been affected by the sunk cost fallacy. Despite financial difficulties, delays, and the lack of clear economic returns, the project has continued. The commitment to this project reflects the broader tendency in Nepal to persist with initiatives to avoid public and political fallout, rather than reassessing the project's overall feasibility.
- **Melamchi Water Supply Project:** Initiated over two decades ago, the Melamchi Water Supply Project aimed to address Kathmandu's chronic water shortages. Despite massive investments and numerous delays caused by natural disasters, contractor issues, and

logistical challenges, the government continued to push forward. The determination to see the project through, driven by the substantial financial and political capital already invested, exemplifies the sunk cost fallacy at work.

- **Upper Tamakoshi Hydropower Project:** This project, considered one of Nepal's most ambitious hydropower ventures, faced significant delays and cost overruns due to geological challenges, labor disputes, and financing issues. Despite these setbacks, the project continued to receive funding and political backing, largely because of the heavy investments already made. The insistence on completion, despite mounting evidence of diminishing returns, reflects the influence of the sunk cost fallacy.
- **Pashupati Area Development Trust (PADT) Projects:** Several PADT initiatives, including infrastructure improvements and temple renovations, have faced criticism for continued funding despite questionable outcomes. The projects, driven by cultural and religious significance, often proceed due to the invested capital and political sensitivity, illustrating how sunk costs can influence decisions even in culturally significant projects.

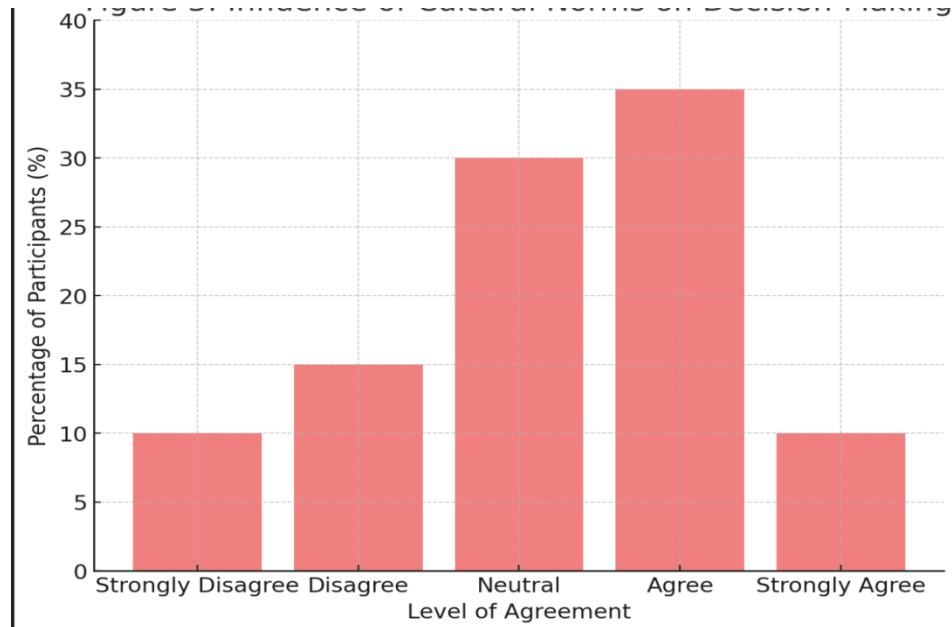
### ***C. Influence of Demographic Factors:***

Demographic factors such as the regional population, economic status, and educational background of decision-makers significantly influence how the sunk cost fallacy manifests in Nepal's state-funded projects. For example, in rural and less economically developed areas, there is often a stronger push to continue projects like the Melamchi Water Supply Project due to the perceived benefits for local communities. However, the lack of local technical expertise and economic resources may lead to underestimations of future costs, exacerbating the sunk cost fallacy. Similarly, demographic factors also impact voter expectations, leading politicians to push forward with failing projects to maintain political support.

### ***D. Impact of Cultural, Geographical, and Religious Factors:***

Cultural and religious values play a significant role in perpetuating the sunk cost fallacy in Nepal. Projects tied to religious or cultural heritage, such as those under the Pashupati Area Development Trust (PADT), are particularly vulnerable to this bias. The cultural and religious significance of these projects makes it politically and socially difficult to abandon them, even when they are economically unviable. Geographically, projects in remote areas like the Upper Tamakoshi Hydropower Project face logistical challenges that inflate costs, but the geographical isolation also makes it harder to reassess or cancel these projects once significant resources have been committed. The table below shows how participants perceive their cultural norms in relation to the fallacy.

**Figure 3. Influence of Cultural Norms on Decision-Making**



***E. Short-Term and Long-Term Impacts:***

In the short term, the sunk cost fallacy often leads to cost overruns and delays, as seen in the Kulekhani III Hydropower Project and Nijgadh International Airport.

These projects continue to drain public funds, reducing the government's capacity to finance new initiatives. In the long term, these projects may deliver suboptimal returns or even fail, leading to wasted investments and missed opportunities. For example, the delayed completion of the Melamchi Water Supply Project has prolonged Kathmandu's water crisis, showing how the sunk cost fallacy can have lasting negative effects on infrastructure development and public services. These projects have diverted resources from other critical areas such as education, healthcare, and local infrastructure. These projects, by consuming vast amounts of public funds without guaranteed returns, exacerbate Nepal's economic vulnerabilities, especially in times of financial uncertainty.

***F. Influence of Complex Situations:***

[6] Complex situations such as political instability, economic recession, and natural disasters further amplify the sunk cost fallacy in Nepal's state-funded projects. For instance, during periods of economic uncertainty, there is a tendency to continue large infrastructure projects as a way to stimulate the economy or maintain employment, even if those projects are not economically sound. Additionally, political instability often leads to frequent changes in



leadership and project management, making it harder to halt projects that have already consumed significant resources. The Budhi Gandaki Hydropower Project, for instance, has faced multiple changes in leadership, each recommitting to the project despite ongoing issues, driven by the need to avoid political backlash.

**Table 2. Sunk Cost Fallacy in Major Government Projects**

Project Name	Investment (in millions)	Status	Sunk Cost Fallacy Indicators
Budhi Gandaki Hydropower Project	\$500	Delayed/Overrun	Persistent investment despite delays and financial overruns
Nijgadh International Airport	\$400	Controversial	Continued investment despite environmental concerns
Melamchi Water Supply Project	\$300	Ongoing/Delayed	Continued investment despite prolonged delays

**G. Strategies for Mitigation:**

To mitigate the impact of the sunk cost fallacy on state-funded projects, Nepal must adopt a more rigorous approach to project evaluation and decision-making. This can include:

- **Regular Independent Audits:** Ensuring that large projects undergo regular audits by independent bodies can help highlight inefficiencies and prevent further unnecessary investments.
- **Political Accountability:** Creating a culture where political leaders and bureaucrats are held accountable for project outcomes, including the decision to halt unviable projects, can reduce the pressure to continue with failing initiatives.
- **Evidence-Based Decision-Making:** Institutionalizing processes that prioritize data and evidence over political considerations will be crucial in overcoming the sunk cost fallacy. This includes phased funding models where continued investment is contingent upon meeting clearly defined milestones.

By addressing these systemic issues, Nepal can improve the management of its state-funded projects, ensuring that public funds are utilized in a manner that maximizes economic and social benefits.

## **VI. Discussion**

### ***A. Significance of the Results:***

The research findings shed critical light on the persistence of the sunk cost fallacy in state-funded projects in Nepal, revealing a multifaceted issue that significantly hampers effective decision-making processes and resource allocation. The sunk cost fallacy, characterized by the inclination to continue investing in failing projects due to previously incurred costs, demonstrates the psychological barriers faced by decision-makers in both public and private sectors. This cognitive bias is especially pronounced in contexts where emotional, political, and cultural influences converge, as illustrated by various case studies throughout the research.

The significance of these results lies in their capacity to inform policy and practice within the realm of public finance and project management in Nepal. The findings emphasize that the sunk cost fallacy is not merely an individual error in judgment; it reflects systemic flaws in how decisions are made regarding state-funded initiatives. By examining projects such as the Budhi Gandaki Hydropower Project, the Nijgadh International Airport, and the Melamchi Water Supply Project, the study reveals that the continuation of these initiatives, despite clear indicators of inefficiency and failure, is often driven by the reluctance to abandon investments that have already consumed substantial public resources.

The results underscore the pressing need for a paradigm shift in decision-making frameworks used by government officials and project managers. By recognizing the cognitive biases that impede rational decision-making, stakeholders can take proactive measures to mitigate these biases and prioritize evidence-based assessments of project viability. The study highlights the crucial role that rational thinking plays in overcoming the sunk cost fallacy, demonstrating that objective evaluation processes can prevent the perpetuation of unproductive projects. This recognition serves as a foundation for promoting financial literacy and decision-making skills among policymakers, ultimately leading to improved project outcomes.

### ***B. Addressing the Topic of Investigation:***

The research aimed to investigate the manifestation of the sunk cost fallacy in state-funded projects within Nepal's unique socio-political landscape. The findings clearly address the research objectives by illustrating how this cognitive bias shapes decision-making at various levels of government. The continuation of problematic projects, as demonstrated in the case

studies, highlights a fundamental disconnect between the emotional weight attached to past investments and the rational assessment of current and future project feasibility.

The findings from the Budhi Gandaki Hydropower Project are particularly illustrative of this phenomenon. Despite multiple delays, political interference, and doubts about its financial viability, the government has chosen to persist with the project largely due to the significant investments already made. This case exemplifies the way the sunk cost fallacy can distort decision-making processes, leading to an escalation of commitment to failing projects. This phenomenon is compounded by the political landscape in Nepal, where halting a project can be perceived as a political liability, thereby discouraging officials from making difficult but necessary decisions.

Similarly, the analysis of the Nijgadh International Airport project showcases how the emotional and political ramifications of past investments can lead to irrational decision-making. Despite mounting evidence suggesting the project may not be economically viable or environmentally sustainable, the government continues to allocate resources. This decision is influenced by the political promise of delivering a major infrastructure project and the desire to avoid the fallout of abandoning an initiative that has already garnered significant public and political support.

In the case of the Melamchi Water Supply Project, initiated over two decades ago to address chronic water shortages in Kathmandu, the findings illustrate how long-standing commitments can cloud rational judgment. The project has faced numerous delays and setbacks, yet the government remains determined to see it through, largely due to the significant investments already made. This persistent commitment to the project, despite its challenges, exemplifies the ways in which decision-makers can become entrenched in a cycle of irrational investment, driven by the sunk cost fallacy.

Furthermore, the research reveals that demographic factors significantly influence how the sunk cost fallacy manifests in state-funded projects. The regional population, economic status, and educational background of decision-makers play crucial roles in shaping perceptions of project viability. For example, decision-makers in economically disadvantaged areas may feel an increased responsibility to continue funding projects that they believe will benefit their communities. However, this perspective can lead to underestimating future costs and overestimating potential benefits, perpetuating the challenges posed by the sunk cost fallacy.

The research also highlights the impact of cultural and religious factors on decision-making in Nepal. Projects tied to cultural or religious heritage, such as those under the Pashupati Area Development Trust, are particularly susceptible to the sunk cost fallacy. The cultural significance of these projects makes it politically and socially challenging to abandon them, even when they

are economically unviable. This interplay between cultural values and cognitive biases illustrates the complex nature of decision-making in the context of state-funded projects in Nepal.

### ***C. Implications of the Findings***

The implications of this research extend beyond the individual case studies examined, offering insights that can inform broader discussions about project management, public finance, and governance in Nepal. The findings emphasize the urgent need for enhanced financial education and decision-making training among government officials and project managers. By fostering a culture that values rational, evidence-based approaches to project evaluation, stakeholders can be better equipped to recognize and combat the sunk cost fallacy.

Moreover, the study highlights the necessity for systemic reforms in the management of state-funded projects. The identification of key strategies to mitigate the impact of the sunk cost fallacy—such as regular independent audits, political accountability measures, and evidence-based decision-making processes—provides a roadmap for improving project management in Nepal. Policymakers must prioritize the implementation of these strategies to cultivate a more transparent and accountable system for managing public resources.

On a theoretical level, this research contributes to the growing body of literature on cognitive biases in decision-making, particularly within the realm of public finance and project management. By elucidating the mechanisms through which the sunk cost fallacy operates in the context of state-funded projects, this research offers valuable insights that can inform future studies on cognitive biases and their effects on organizational behavior. The intersection of demographic factors and cognitive biases presents a fertile ground for further exploration, prompting researchers to consider how individual backgrounds and societal influences shape decision-making processes.

Furthermore, the findings of this research can serve as a catalyst for discussions on governance and accountability in public finance. By emphasizing the importance of evidence-based decision-making, this study aligns with global trends toward greater transparency and accountability in public administration. Policymakers are encouraged to prioritize data-driven assessments of project feasibility and to engage stakeholders in discussions about project viability. This approach can enhance public trust and ensure that resources are allocated effectively to initiatives that deliver tangible benefits to society.

### ***D. Limitations of the Study***

While the findings of this research are significant, it is essential to acknowledge its limitations. The focus on specific case studies, while providing depth and context, may not fully capture the

breadth of the sunk cost fallacy's impact across all state-funded projects in Nepal. Different projects may exhibit varying degrees of susceptibility to this cognitive bias, influenced by factors such as project scale, funding sources, and stakeholder engagement. Thus, caution must be exercised when generalizing the findings to a wider context.

Additionally, the qualitative nature of the findings may limit the generalizability of the results. While the case studies offer rich insights into individual projects, future research could benefit from a broader quantitative analysis that encompasses a larger sample of projects across different regions and sectors. Such an approach would enhance the understanding of the sunk cost fallacy's prevalence and impact, providing a more comprehensive picture of decision-making in Nepal's public sector.

Another limitation of the study is the potential for bias in the data collection process. Although efforts were made to ensure objectivity in the analysis, the interpretation of qualitative data is inherently subjective. This subjectivity may influence the conclusions drawn, necessitating caution when generalizing the findings to a wider context.

Furthermore, the study did not explore the potential impact of external factors, such as economic fluctuations, technological advancements, or shifts in political leadership, on decision-making processes related to state-funded projects. These external factors can play a significant role in shaping project outcomes and may warrant further investigation in future research.

### ***E. Directions for Future Research***

Building on the limitations identified, future research should explore several avenues to further investigate the sunk cost fallacy in state-funded projects. Firstly, a longitudinal study examining the decision-making processes over time could yield valuable insights into how perceptions of sunk costs evolve and impact project trajectories. Such a study would allow researchers to analyze the factors that contribute to decision-makers' persistence in funding failing projects and the eventual turning points that lead to project termination or redirection.

Secondly, research could delve into the effectiveness of proposed mitigation strategies. Investigating the impact of regular independent audits on project outcomes, for example, could provide evidence for the efficacy of transparency measures in curbing the sunk cost fallacy. Additionally, studies focused on political accountability mechanisms and their influence on decision-making would enhance the understanding of how governance structures affect project management in Nepal.

Another important direction for future research is to examine the role of community engagement and public perception in the decision-making process. Understanding how stakeholder

perspectives shape the continuation or abandonment of state-funded projects could offer valuable insights into the dynamics of public finance in Nepal. Researchers could explore how community pressures and expectations influence decision-makers and whether increased public engagement can mitigate the sunk cost fallacy's effects.

Moreover, comparative studies that investigate the sunk cost fallacy in other countries with similar socio-political contexts could provide important cross-cultural insights. By examining how different countries approach decision-making in state-funded projects, researchers can identify best practices and strategies that may be applicable to Nepal. Such comparative analyses can help contextualize the findings within a broader international framework, enhancing the understanding of cognitive biases in public finance.

Lastly, future research could also explore the intersection of cognitive biases with other factors that influence decision-making in state-funded projects. For instance, studies could examine how organizational culture, leadership styles, and institutional norms interact with cognitive biases to shape project outcomes. Understanding these relationships could provide a more nuanced perspective on the complexities of decision-making in public finance.

### ***F. Conclusion***

In conclusion, this research has highlighted the pervasive influence of the sunk cost fallacy in state-funded projects in Nepal, emphasizing the importance of rational thinking and evidence-based decision-making in overcoming this cognitive bias. The findings underscore the challenges faced by decision-makers in navigating complex socio-political landscapes and the significant implications of these challenges for effective resource allocation.

The urgency of these changes cannot be overstated, as the successful management of state-funded projects is crucial for addressing the pressing needs of Nepal's citizens. Through informed decision-making and a commitment to transparency, Nepal can pave the way for a more sustainable and prosperous future, ensuring that public funds are utilized effectively to benefit all members of society.

By addressing the identified limitations and exploring new avenues for future research, stakeholders and policymakers can work toward improving the management of public resources in Nepal. Ultimately, fostering a culture of rational decision-making and accountability will not only enhance project outcomes but also contribute to the long-term economic and social development of the country.

The findings of this research serve as a clarion call for action, urging stakeholders to recognize and confront the sunk cost fallacy in state-funded projects. By cultivating a culture of rational

thinking, embracing transparency, and engaging in meaningful public discourse, Nepal can transform its approach to project management and resource allocation, setting the stage for a brighter, more equitable future for all its citizens.

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