

## Time's Illusion in Balinese Thought: The Role of Sad Ripu and Time Management in Financial Decision-Making

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### Abstract

In today's fast-paced world, individuals increasingly experience time as slipping away, creating a sense of urgency that profoundly shapes financial decisions. Yet, research rarely examines how this subjective temporal perception interacts with emotional regulation and time management to influence behaviour, leaving a critical gap in understanding the psychological and cultural mechanisms underlying financial decision-making. This study investigates how time perception, Sad Ripu control—a culturally rooted framework of emotional regulation in Balinese Hindu thought—and time management jointly affect financial decision-making. Using a purposive sample of 300 financially experienced individuals in Denpasar, Bali, data were collected via structured questionnaires and analysed with Partial Least Squares Structural Equation Modelling (PLS-SEM). Findings reveal that faster perceived time significantly enhances financial decision-making both directly and indirectly. Surprisingly, heightened temporal urgency improved Sad Ripu control, suggesting that cultural context can convert perceived pressure into greater self-regulation. Effective time management further amplified rational financial choices, demonstrating the synergistic role of cognitive and emotional strategies in high-pressure settings. Practically, these results offer actionable insights for individuals, organisations, and policymakers globally. Cultivating temporal awareness, strengthening emotional regulation, and promoting disciplined time management can reduce impulsivity, enhance financial resilience, and improve adaptive decision-making in volatile economic environments. Integrating cultural constructs such as Sad Ripu into financial literacy programmes offers a globally relevant strategy for fostering rational, sustainable, and context-sensitive financial behaviour.

**Keywords:** Time Perception; Sustainable Financial Decision-Making; Sad Ripu; Time Management; Behavioural Finance; Bali; Indonesia

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## Introduction

Time is a fundamental dimension of human existence and shapes how individuals think, behave, and navigate daily decisions, including those related to finances, in line with time. Although clock time is objective and constant, people rarely experience it in such a linear manner. Instead, individuals rely on multiple cognitive mechanisms to evaluate the passage of time, resulting in a discrepancy between objective clock time and subjective temporal experience (Wittmann, 2015). Empirical studies have shown that individuals tend to perceive time passing more quickly when they are engaged in enjoyable activities (Sackett et al., 2010). Despite identical temporal intervals, situational factors create variations in subjective temporal estimation, highlighting the highly personal nature of temporal experience and its influence on everyday interactions (Weiss et al., 2021). Furthermore, differences in perceived time have been found to affect broader elements of health and well-being, indicating the importance of understanding environmental and cognitive determinants of temporal variation (Larson & Von Eye, 2006). The sensation of time dilation, for instance, is associated with heightened experiences of boredom and related transient emotional states (Raffaelli et al., 2018). Consequently, time perception has emerged as a significant domain in contemporary psychology and behavioural economics, integrating psychological, neurological, and cultural dimensions.

In recent years, a growing number of individuals have reported the sensation that time is passing more rapidly, often without identifiable cause. Human behaviour is largely constructed within the frame of perceived rather than objective time; thus, changes in temporal awareness have tangible consequences for decision-making processes. Dillard et al. (2019) found that participants expecting vigilance tasks to last longer than they actually did experienced accelerated perceived time passage (PTP), although this acceleration did not necessarily improve performance in the task. This

asymmetry suggests that the perception of time can change independently of behavioural outcomes, raising questions about its influence in complex decision contexts, such as financial behaviour.

Financial decision-making is critical for individuals and organisations alike, given its role in value creation and long-term sustainability. Sound decisions are required to maximise returns for stakeholders and strengthen an organisation's ability to survive in dynamic, competitive environments (Peprah & Ayaa, 2022). Fundamental and significant financial decisions are vital for any business worldwide (Rashid & Saeed, 2017), and this strategic function underpins how organisations allocate resources and pursue growth. Businesses worldwide still rely heavily on their financing choices to maintain operational viability (Aboagye-Otchere & Boateng, 2023), and poor decisions can pose significant risks, including bankruptcy (Doan, 2020). Financial decisions commonly require careful allocation of scarce resources among competing opportunities (Waheed & Malik, 2019) and influence investment, borrowing, and performance outcomes (Cui et al., 2011; Kajanathan et al., 2013; Du et al., 2015). However, beyond organisational settings, financial decision-making also involves psychological processes in which cognitive skills, critical thinking, and emotional control shape individual behaviour (DeLiema & Hemmy, 2023). Combining psychological and economic determinants, therefore, becomes essential to better understand how time perception influences financial decisions.

Within this psychological domain, the Hindu philosophical construct of *Sad Ripu* offers a culturally grounded perspective on the emotional processes that affect economic behaviour. *Sad Ripu* refers to six internal negative tendencies—desire, greed, anger, delusion, pride, and envy—that may disrupt rational judgement and influence behavioural outcomes, including in financial contexts (Subagia, 2016). Individuals with stronger self-

control are better equipped to regulate impulses, and self-control has been shown to be a core mechanism underpinning attitudes towards time (Wang & Sun, 2023). Consequently, emotional control, specifically the management of *Sad Ripu*, warrants attention as a potential pathway through which time perception influences financial decisions.

A further construct relevant to this mechanism is time management. Time management comprises strategies through which individuals plan, prioritise, and allocate time efficiently to achieve goals (Romero et al., 2023). It includes the capacity to focus on important tasks and minimise distractions, supporting productivity and balanced functioning (Chadburn et al., 2017). The literature also suggests that understanding the nature of time is essential in reframing time management practices (University of Calgary, Health Sciences Centre, et al., 2022). The study's conclusions, by Odoh (2023), showed that efficient time management affects workers' ability to handle pressure, stress, and confrontations as well as their output, emphasising that time utilisation has psychological rather than merely procedural significance. In the context of financial decision-making, time management may influence both how temporal awareness is translated into action and how individuals regulate emotional impulses.

Although research has investigated time perception, emotional control, and time management independently, there remains a lack of empirical work examining their combined influence on financial decision-making. In particular, the mechanism through which time perception shapes financial decisions via emotional control (*Sad Ripu*) and time management has not been explored conceptually or empirically. This gap limits our understanding of how socio-cultural psychological factors interact with cognitive and behavioural processes in determining financial outcomes.

Addressing this gap, the present research investigates the relationship between time perception, emotional control (*Sad Ripu*), time

management, and financial decision-making. The study aims to understand how temporal awareness affects financial behaviour both directly and indirectly through emotional regulation and time management. By examining these interrelated mechanisms, this research offers theoretical novelty by integrating modern behavioural economics with Indigenous socio-cultural psychological concepts. The findings are expected to contribute to global behavioural science by providing insights into how cultural emotional constructs, such as *Sad Ripu*, interact with cognitive determinants, thus informing financial education, personal development programmes, and managerial practices in diverse cultural settings.

To provide a clear structure, the remainder of this article is organised as follows. The next section reviews the relevant literature on time perception, emotional control (*Sad Ripu*), time management, and financial decision-making, and develops the research hypotheses. The subsequent section outlines the research methodology employed in the study. This is followed by the presentation and discussion of the empirical findings. The final section concludes the paper by highlighting the theoretical contributions, practical implications, and directions for future research.

## **Theoretical Approaches**

### **Perceived Time Passage (PTP)**

The concept of Perceived Time Passage (PTP) emphasises that individuals do not experience time as a stable or uniform entity. Rather than relying solely on objective clock time, people interpret the passage of time through a mixture of cognitive processes, emotional states, and situational cues. As a result, subjective time may feel faster or slower depending on one's psychological condition. Philosophical traditions have long treated time as an illusory phenomenon, suggesting that the sensation of rapid time flow is shaped more by perception than by physical reality (Bardon, 2023; Farr, 2023). These temporal illusions reveal a gap between lived experience and measurable duration, where the feeling of acceleration or

deceleration emerges even though the actual interval remains constant.

Contemporary empirical work further demonstrates that PTP has a neuro-cognitive basis. Temporal experience is linked to internal predictive models that assist individuals in anticipating events, implying that time perception is the outcome of complex cognitive activity rather than mere introspection (Montemayor & Wittmann, 2022). In some circumstances, subjective time corresponds closely with measurable time, whereas in others it diverges significantly, creating a perceived speeding up or slowing down of temporal flow (Flaherty, 2018). This variability complicates attempts to define a single pattern of temporal cognition, yet it provides a valuable means of explaining differences in human behaviour. Within financial contexts, altered temporal awareness may influence urgency, impulsivity, and the weighing of risks and rewards. Those who sense time passing quickly may feel pressured into making premature or poorly calculated financial choices, while those who experience time more slowly may exhibit greater caution and deliberation.

### **Theory of Planned Behaviour (TPB)**

The Theory of Planned Behaviour (TPB) offers a widely recognised framework for understanding how internal beliefs shape intentions and subsequent behaviour. The theory posits that attitudes, subjective norms, perceived behavioural control, and perceived usefulness collectively influence the likelihood that an individual will engage in a particular action. Attitude concerns the favourability of one's evaluation of a behaviour, subjective norms relate to perceived social expectations, and perceived behavioural control reflects the individual's belief regarding their capacity to perform the behaviour (Weedige et al., 2019). Perceived usefulness, as discussed by Mamun et al., (2021), concerns one's judgement of the benefits or practical value of a behavioural choice.

Within the context of financial behaviour, TPB offers a structure for understanding how temporal and emotional processes shape

intention. Time perception can influence both attitudes and perceived control, particularly when rapid subjective time creates a sense of urgency. Sad Ripu, functioning as an emotional disruptor, may weaken intention through impulses that conflict with rational judgement. Meanwhile, effective time management may strengthen perceived behavioural control by enhancing the ability to organise, plan, and prioritise actions. Together, these perspectives offer a coherent explanation of how cognitive, emotional, and organisational factors interact within financial decision-making.

### **Sad Ripu**

Sad Ripu, grounded in Hindu philosophical tradition, refers to six internal adversaries—Kama (lust), Lobha (greed), Krodha (anger), Moha (delusion), Mada (pride), and Matsarya (envy). These forces are believed to obscure clarity of thought and disrupt moral discernment, encouraging behaviour governed by impulse rather than reason (Triyadi & Visual, 2014). Classical texts such as the Kakawin Rāmāyaṇa describe Sad Ripu as inherent psychological forces residing within the human heart, capable of undermining wisdom and personal integrity when left unchecked (Subagia, 2016). From this perspective, self-mastery involves regulating desire, emotion, and ego so that decision-making aligns with reflective judgement (Santi, 2020).

In financial behaviour, Sad Ripu provides a culturally grounded explanation for departures from rational economic models. Greed may prompt excessive risk-taking; anger may impair evaluative thinking; pride can generate overconfidence; and envy may encourage unnecessary or status-driven expenditure. The capacity to regulate Sad Ripu, therefore, becomes crucial in supporting balanced judgement, emotional composure, and responsible financial choices.

### **Integration of Constructs in the Present Research**

Although existing literature has advanced understanding of time perception, behavioural intention, emotional regulation, and time

management, these domains have rarely been examined together, particularly in relation to financial decision-making (Chadburn et al., 2017; Gable et al., 2022; Strömbäck et al., 2017; Wittmann, 2015). Prior studies have not clarified the mechanism through which time perception exerts its influence on financial behaviour via the emotional channel of Sad Ripu and the organisational channel of time management (Epstein et al., 2014; Gathergood, 2012; Romero et al., 2023; Subagia, 2016). This gap limits the development of a more holistic explanation of how cognitive, cultural, and emotional processes converge in financial contexts.

The present research addresses this gap by integrating PTP, Sad Ripu, time management, and financial decision-making within a single conceptual framework. This approach contributes theoretical novelty in two ways. First, it positions time perception as an antecedent that shapes both emotional regulation and organisational behaviour. Second, it extends the culturally rooted construct of Sad Ripu into the domain of behavioural finance, offering a perspective that bridges local philosophical insight with global economic decision-making. Through this integration, the study seeks to provide a more comprehensive account of the psychological, cultural, and temporal influences that shape financial behaviour, with implications for financial education, personal development, and managerial practice.

### **Hypothesis Development**

The proposed model explores how time perception, emotional regulation (Sad Ripu), and time management collectively shape financial decision-making. Each hypothesis is developed by drawing upon established theoretical and empirical literature, ensuring coherence with behavioural science and socio-cultural psychology. The following subsections outline the conceptual reasoning supporting each relationship.

#### **Association between Time Perception and Financial Decision-Making**

The literature on time perception shows that psychological, neurological, and cultural factors influence how individuals experience the passage of time (Wolman et al., 2023). Differences in temporal awareness affect how situations are cognitively appraised, including the degree of urgency attributed to decision-making contexts. Individuals who feel time is slipping away often adopt behaviours distinct from those who perceive time as plentiful, resulting in divergent patterns of financial judgement and action (Simonse et al., 2024). These variations suggest that time perception may shape the speed, quality, and rationality of financial decisions.

#### **H1: Time perception has a significant effect on financial decision-making.**

#### **Relationship between Time Perception and the Control of Sad Ripu**

As stated above, Sad Ripu represents six internal emotional tendencies—lust, greed, anger, delusion, pride, and envy—that can compromise psychological balance. Studies indicate that a perceived scarcity of time heightens emotional arousal and reduces the ability to regulate impulses (Gable et al., 2022). When subjective temporal pressure increases, individuals may find it harder to suppress negative emotional tendencies, including those associated with Sad Ripu. This suggests a psychological connection between temporal awareness and emotional self-regulation.

#### **H2: Time perception has a significant effect on the control of Sad Ripu.**

#### **Association between Time Perception and Time Management**

Time management theory emphasises planning, prioritisation, and effective use of time as key components of productive behaviour. Individuals who perceive time as scarce or quickly passing may adopt more disciplined scheduling and prioritisation strategies (Epstein et al., 2014). Conversely, individuals who perceive time as abundant may experience less urgency, which can reduce the efficiency of time-use routines (Singh & Biswas, 2025). These findings suggest that time perception can shape

behavioural strategies for organising and controlling daily activities.

### **H3: Time perception has a significant effect on time management.**

#### **Contribution of Sad Ripu Control to Financial Decision-Making**

The attributes encompassed by Sad Ripu—such as greed, anger, pride, and impulsivity—have been linked to distorted reasoning and undesirable decision outcomes. These tendencies may foster excessive risk-taking or imprudent financial choices (Duong et al., 2025). Emotional instability, particularly impulsive reactions, has also been associated with suboptimal financial behaviour and risky financial actions (Gathergood, 2012). Effective regulation of Sad Ripu thus forms a critical psychological foundation for rational and responsible financial decision-making.

### **H4: Control of Sad Ripu has a significant effect on financial decision-making. Association between Time Management and Financial Decision-Making**

Time management is widely recognised as essential for maintaining goal-directed behaviour. Individuals with strong time management skills are better equipped to allocate attention and resources towards financial evaluation, planning, and long-term strategy (Kumar et al., 2023). This structured approach increases the likelihood of making informed, well-considered, and sustainable financial decisions.

### **H5: Time management has a significant effect on financial decision-making.**

#### **Mediating Role of Sad Ripu Control in the Link between Time Perception and Financial Decision-Making**

Research indicates that shifts in temporal awareness can influence emotional stability. When individuals sense that time is accelerating, tendencies such as greed, impatience, or frustration may intensify (Choo & Tan, 2023). These emotional reactions can hinder rational judgement, particularly in contexts requiring careful financial evaluation (Hermansson &

Jonsson, 2021). Consequently, emotional regulation may act as a mediator through which time perception shapes financial behaviour.

### **H6: Control of Sad Ripu mediates the relationship between time perception and financial decision-making.**

#### **Mediating Role of Time Management in the Link between Time Perception and Financial Decision-Making**

Time management may serve as an organisational mechanism linking time perception to financial behaviour. Individuals who perceive time as limited and who possess strong time management skills are more likely to maintain focus, undertake systematic analysis, and avoid impulsive decision-making (Strömbäck et al., 2017). Conversely, poor time management may amplify stress and impulsivity when rapid time perception is experienced, potentially leading to unfavourable financial outcomes. This suggests a mediating role for time management in the relationship between temporal awareness and financial decision quality.

### **H7: Time management mediates the relationship between time perception and financial decision-making.**

#### **Methods**

##### **Research Location**

This study was conducted in Denpasar City, Bali, a region renowned for its distinctive combination of traditional cultural values and a rapidly developing digital economy. Denpasar provides an appropriate setting for investigating how subjective time perception (time illusion) and time management influence financial decision-making, as well as how control over Sad Ripu factors in this process. The research population comprised individuals engaged in finance, management, and entrepreneurship with experience in financial decision-making or in managing digital assets. All procedures, including data collection and participant consent, were reviewed and approved by the Ethics Committee of Universitas Pendidikan Nasional, ensuring full compliance with established ethical standards.

## Sampling Method

The study employed purposive sampling to ensure that participants had relevant experience aligned with the research objectives. Inclusion criteria were as follows: participants had to be residents of Denpasar City; possess at least two years of experience in financial decision-making or investment, including the ability to manage time effectively and prioritise tasks (time management); have experience allowing reflection on subjective time perception (time illusion) within financial contexts; occupy managerial, professional, or entrepreneurial positions involving financial risk; and be able to respond to the questionnaire with honesty and completeness.

A total of 300 respondents were targeted, following the methodological procedures as suggested by Hair (2021) which suggests that this sample size is adequate for Partial Least Squares Structural Equation Modelling (PLS-SEM) studies, particularly when the population is unknown or large. This ensures both statistical reliability and a representative understanding of behavioural diversity among the target population.

## Research Instrument Design

Data were gathered using a standardised questionnaire, employing a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Each variable was operationalised with indicators derived from relevant literature.

- **Time Perception / Time Illusion:** In this study, time perception is operationalised as perceived temporal acceleration or time scarcity, defined as the subjective experience that time is passing quickly and that the available time for completing tasks or making financial decisions is limited. The construct, therefore, captures psychological temporal urgency rather than objective clock-time accuracy or productivity.

Higher scores indicate stronger perceived time pressure and awareness of limited temporal resources in decision contexts (Wittmann, 2015).

- **Sad Ripu Control:** participants' ability to regulate internal tendencies such as desire, greed, anger, delusion, pride, and envy (Triyadi & Visual, 2014).
- **Time Management:** participants' capacity for planning, prioritisation, and efficient use of time (Romero et al., 2023).
- **Financial Decision-Making:** participants' engagement in risk-based financial planning and strategic decision-making (Peprah & Aya, 2022).

The questionnaire was administered both online and offline over a two-week period, ensuring a high response rate and reliable data collection.

## Data Analysis

Data analysis was conducted using PLS-SEM version 4, a method suitable for simultaneously evaluating both measurement and structural models. PLS-SEM is particularly well-suited for exploratory research involving complex relationships and mediation analysis.

The analysis process involved three key stages. First, the reliability and validity of all constructs were assessed. Second, the structural framework was examined to determine both direct and indirect relationships among variables. Third, the mediating roles of Sad Ripu control and time management were evaluated in the relationship between time perception and financial decision-making.

This approach, and practical time management, enables the study to elucidate the roles of culturally grounded emotional regulation (Sad Ripu) and practical time-management skills in supporting rational and sustainable financial decision-making.

## Results and Discussion

### Descriptive Analysis

**Table 1: Descriptive Profile of the Respondents**

Characteristics	Categories	Frequency (n)	Percentage (%)
Gender	Male	178	59.3
	Female	122	40.7
Age (years)	20–29	87	29
	30–39	121	40.3
	40–49	62	20.7
	50+	30	10
Education Level	Diploma / Associate Degree	28	9.3
	Bachelor's Degree	179	59.7
	Master's Degree	74	24.7
	Doctoral Degree	19	6.3
Work Experience (years)	2–5	88	29.3
	6–10	119	39.7
	11–15	63	21
	16+	30	10
Occupation / Position	Manager	92	30.7
	Professional	118	39.3
	Entrepreneur	90	30

**Source: Developed by the Authors, 2025**

From Table 1, the descriptive profile of the 300 respondents demonstrates a diverse sample in terms of gender, age, education, work experience, and occupation, making it suitable for examining the relationships among time perception, Sad Ripu, time management, and financial decision-making in Denpasar.

**Gender:** The sample includes 178 males (59.3%) and 122 females (40.7%), providing a reasonable balance that allows for the consideration of potential gender differences in emotional regulation (Sad Ripu) and temporal awareness, which could influence financial decision strategies.

**Age:** Most respondents are aged 30–39 years (40.3%), followed by 20–29 years (29.0%) and 40–49 years (20.7%), with a smaller proportion aged 50 and above (10%). This indicates that the majority are in their prime working years, likely experiencing significant time pressures, making them relevant for studying time-management behaviours and subjective perceptions of time.

**Education Level:** A majority hold a Bachelor's degree (59.7%), with smaller numbers possessing Master's (24.7%) and Doctoral degrees (6.3%), and a minority with Diploma or Associate qualifications (9.3%). Higher education may enhance cognitive skills and self-regulation, which are important for controlling Sad Ripu and making considered financial decisions.

**Work Experience:** Respondents mainly have 6–10 years of experience (39.7%), followed by 2–5 years (29.3%), 11–15 years (21.0%), and over 16 years (10.0%). Those with greater professional experience are expected to demonstrate well-developed time-management strategies and more deliberate approaches to financial decision-making, providing insight into the interplay among perceived time, emotional control, and financial behaviour.

**Occupation / Position:** Participants include managers (30.7%), professionals (39.3%), and entrepreneurs (30.0%). This variety ensures that the findings capture a range of financial

responsibilities and decision-making pressures, highlighting differences in how time perception and emotional control (Sad Ripu) may manifest across occupational roles.

In summary, the sample profile supports the investigation of how time perception, Sad Ripu, **Reliability and Validity Test**

**Table 2: Construct Reliability and Validity**

	<b>Cronbach's alpha</b>	<b>Composite reliability (rho_a)</b>	<b>Composite reliability (rho_c)</b>	<b>Average variance extracted (AVE)</b>
<b>Financial Decision</b>	<b>0.924</b>	<b>0.925</b>	<b>0.944</b>	<b>0.771</b>
<b>Sad Ripu Control</b>	<b>0.960</b>	<b>0.963</b>	<b>0.970</b>	<b>0.865</b>
<b>Time Management</b>	<b>0.933</b>	<b>0.978</b>	<b>0.950</b>	<b>0.795</b>
<b>Time Perception</b>	<b>0.877</b>	<b>0.880</b>	<b>0.911</b>	<b>0.671</b>

**Source: Developed by the Authors**

The results of the measurement model in Table 2 indicate that all constructs in the study exhibit high internal consistency and convergent validity, supporting the questionnaire's reliability and the robustness of the data.

Financial Decision-Making shows a Cronbach's alpha of 0.924, with composite reliability values (rho\_a = 0.925; rho\_c = 0.944) and an average variance extracted (AVE) of 0.771. These values exceed the recommended thresholds, suggesting that the indicators consistently capture the construct and account for a substantial proportion of the variance in financial decision-making behaviour.

Sad Ripu Control exhibits exceptional reliability, with a Cronbach's alpha of 0.960, composite reliability (rho\_a = 0.963; rho\_c = 0.970), and an AVE of 0.865. This indicates that the questionnaire effectively captures participants' ability to regulate internal tendencies, which is critical for examining how emotional control interacts with perceived time and financial decision-making.

Time Management is also highly reliable, with a Cronbach's alpha of 0.933, composite reliability (rho\_a = 0.978; rho\_c = 0.950), and an AVE of 0.795. This confirms that the construct is measured consistently, reflecting participants' planning, prioritisation, and efficiency in time

and time management interact to shape financial decision-making in a culturally specific context. The diversity across age, experience, and professional roles strengthens the relevance and applicability of the findings.

utilisation, which are expected to mediate the relationship between time perception and financial decisions.

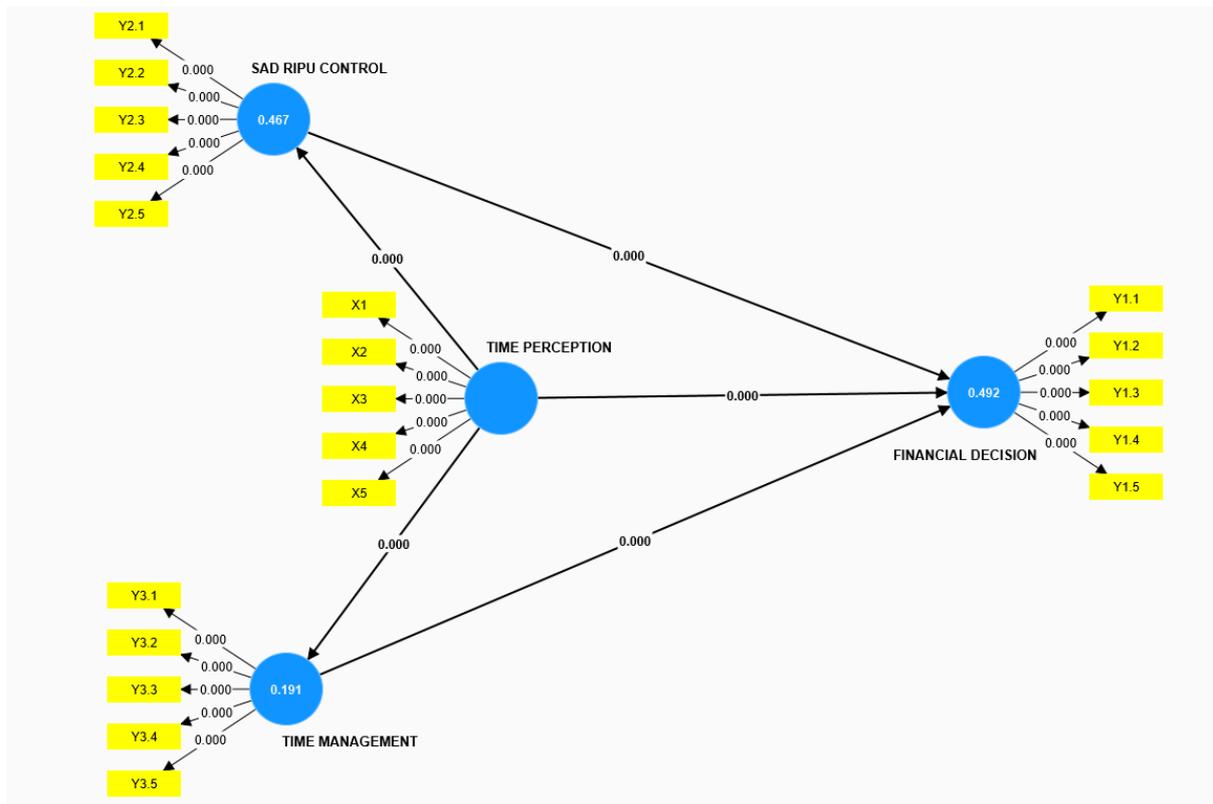
Time Perception shows satisfactory reliability, with a Cronbach's alpha of 0.877, composite reliability (rho\_a = 0.880; rho\_c = 0.911), and an AVE of 0.671. Although slightly lower than the other constructs, these values are still above acceptable thresholds, confirming that the measurement effectively captures participants' subjective experience of time (time illusion) relevant to financial behaviour.

In summary, the measurement model demonstrates that all constructs—time perception, Sad Ripu control, time management, and financial decision-making—are reliable and valid, providing a solid foundation for further analysis of direct and indirect relationships in the study. The results support the investigation into how cultural emotional regulation and temporal awareness influence financial decision-making in a Balinese context.

### **Hypothesis Test**

The relationships among the latent variables were analysed using Partial Least Squares Structural Equation Modelling and are presented in Figure 1, which illustrates the hypothesised direct and mediating relationships among time

perception, Sad Ripu control, time management, and financial decision-making.



**Figure 1: Structural Equation Model Testing**  
 Source: Created by the Authors

**Table 3: Regression Weight Structural Equational Model**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Time Perception -> Financial Decision	1.162	1.167	0.108	10.765	0.000
Time Perception -> <i>Sad Ripu</i> Control	0.683	0.684	0.051	13.419	0.000
Time Perception -> Time Management	0.437	0.444	0.069	6.351	0.000
<i>Sad Ripu</i> Control -> Financial Decision	0.723	0.728	0.095	7.649	0.000
Time Management -> Financial Decision	0.399	0.408	0.089	4.477	0.000
Time Perception -> <i>Sad Ripu</i> Control -> Financial Decision	0.494	0.499	0.080	6.140	0.000
Time Perception -> Time Management -> Financial Decision	0.174	0.182	0.053	3.284	0.001

Source: Developed by the Authors

The structural model resulting from Figure 1 and Table 3 indicates that all hypothesised paths are statistically significant, confirming the proposed

relationships among time perception, *Sad Ripu* control, time management, and financial decision-making.

### Direct Effects

- Time Perception → Financial Decision-Making shows a strong positive effect ( $\beta = 1.162$ ,  $t = 10.765$ ,  $p < 0.001$ ). This suggests that participants who perceive time as moving more rapidly or are more aware of time pressures tend to make more decisive financial choices.
- Time Perception → Sad Ripu Control is also significant and positive ( $\beta = 0.683$ ,  $t = 13.419$ ,  $p < 0.001$ ), indicating that subjective time perception influences the regulation of internal negative tendencies, highlighting the role of temporal awareness in emotional self-control.
- Time Perception → Time Management is significant ( $\beta = 0.437$ ,  $t = 6.351$ ,  $p < 0.001$ ), showing that heightened awareness of time correlates with improved planning, prioritisation, and efficient time use.
- Sad Ripu Control → Financial Decision-Making demonstrates a significant positive effect ( $\beta = 0.723$ ,  $t = 7.649$ ,  $p < 0.001$ ), indicating that stronger control over Sad Ripu (better regulation of greed, anger, pride, envy, etc.) leads to higher-quality and more rational financial decisions.
- Time Management → Financial Decision-Making is also positive and significant ( $\beta = 0.399$ ,  $t = 4.477$ ,  $p < 0.001$ ), implying that better time management (planning, prioritisation, scheduling) contributes to more deliberate and effective financial decisions.

### Indirect Effects

- Time Perception → Sad Ripu Control → Financial Decision-Making ( $\beta = 0.494$ ,  $t = 6.140$ ,  $p < 0.001$ ) confirms that Sad Ripu control significantly mediates the effect of time perception on financial decision-making. A stronger perception of time—particularly the sense that time is moving quickly—enhances individuals' emotional regulation, enabling them to better manage impulses such as greed,

anger, or pride. Improved emotional control subsequently leads to more rational, stable, and responsible financial decisions. This mediation highlights the importance of cultural–emotional processes in translating temporal awareness into financial behaviour.

- Time Perception → Time Management → Financial Decision-Making ( $\beta = 0.174$ ,  $t = 3.284$ ,  $p = 0.001$ ). The findings also indicate that time management partially mediates the relationship between time perception and financial decision-making. Individuals who perceive time as scarce or rapidly passing tend to adopt stronger planning, prioritisation, and scheduling strategies. These enhanced time-management practices translate temporal awareness into clearer cognitive processing and more deliberate financial choices. Thus, time management serves as a behavioural mechanism through which subjective time perception contributes to more effective financial decision-making.

Overall, the results support the study's conceptual framework, demonstrating that subjective time perception affects financial decision-making both directly and indirectly through Sad Ripu control and time management. These findings highlight the intertwined roles of cultural emotional regulation and temporal awareness in shaping rational and responsible financial behaviour.

### Discussions

The findings of this study demonstrate that time perception, Sad Ripu control, and time management exert significant influences on financial decision-making, both directly and through mediating mechanisms. These results support the central objective of the research, namely to address a gap in the literature regarding the combined psychological and cultural determinants of financial behaviour—an area that has been previously examined in a fragmented manner.

H1 confirms that time perception has a positive and substantial effect on financial decision-

making. This aligns with the concept of PTP, which posits that individuals' subjective experience of time influences their sense of urgency and risk evaluation when making decisions (Bardon, 2023; Farr, 2023; Simonse et al., 2024). Individuals who perceive time as moving rapidly tend to exhibit greater decisiveness in their financial choices, indicating a closer coupling between temporal awareness and behavioural action.

An important insight emerges in H2, where time perception is positively associated with Sad Ripu control. Although the initial hypothesis anticipated a negative association—given the traditionally destabilising nature of the Sad Ripu elements—the observed positive effect suggests that, within the Balinese cultural context, heightened temporal awareness may enhance self-reflection and emotional regulation. Comparable adaptive responses to perceived time pressure have been noted in the behavioural self-regulation literature, in which temporal urgency can activate goal-directed cognitive control, prioritisation strategies, and a more deliberate allocation of attention and resources. Under such conditions, individuals may engage in more structured, rational decision-making rather than experience cognitive overload.

This interpretation aligns with self-regulatory frameworks informed by Bandura's (1997) work, which emphasise that perceived constraints can trigger compensatory behavioural adjustments. When individuals perceive time as limited or moving quickly, they may become more intentional in managing impulses related to greed, anger, or pride. The finding underscores the significance of Sad Ripu as a culturally embedded emotional construct that supports financial discipline, rationality, and adaptive self-management.

H3 further indicates that time perception enhances time management capability. This is consistent with time management theory (Epstein et al., 2014; Singh & Biswas, 2025) and the Theory of Planned Behaviour (TPB) (Weedige et al., 2019), both of which emphasise that perceived time scarcity encourages greater

planning, prioritisation, and behavioural control. Individuals who are acutely aware of time constraints tend to adopt more structured patterns of organisation, which subsequently support more deliberate and informed financial decision-making.

The findings for H4 and H5 underscore the contribution of Sad Ripu control and time management to overall financial decision-making. Higher levels of emotional regulation, particularly the ability to supervise and restrain negative impulses, facilitate more stable and reasoned choices (Duong et al., 2025; Gathergood, 2012). Similarly, strong time management skills enhance individuals' capacity to plan, evaluate options, and allocate cognitive resources effectively, thereby improving their financial judgement (Kumar et al., 2023).

The mediation tests for H6 and H7 confirm that Sad Ripu control and time management serve as significant intermediaries in the relationship between time perception and financial decision-making. This indicates that the influence of time perception on financial behaviour operates through both emotional and behavioural pathways. Enhanced temporal awareness enables individuals to regulate their emotions more effectively and to organise their time more efficiently, thereby translating internal psychological processes into coherent financial actions.

Collectively, these findings illustrate the central roles of time perception, Sad Ripu control, and time management in shaping financial decision-making, yielding valuable insights at multiple levels. At the individual level, recognising the rapid passage of time can cultivate discipline, emotional regulation, and effective time management, ultimately promoting more rational and strategic financial behaviour. This is particularly relevant in an increasingly dynamic and fast-paced global environment.

At the organisational level, these results provide a basis for developing culturally informed financial literacy programmes that incorporate emotional regulation, behavioural time management, and temporal awareness. Financial institutions, educational organisations,

and employers may utilise these findings to foster individuals capable of making thoughtful and sustainable financial decisions even amid volatile or uncertain conditions.

At the policy level, the study offers a conceptual and empirical foundation for integrating psychological and cultural dimensions into financial literacy initiatives. By embedding subjective time perception, emotional regulation, and time management into national and international financial education frameworks, policymakers can strengthen economic resilience and promote healthier financial behaviours across diverse populations—an increasingly important objective in the digital era where temporal pressures and uncertainty are pervasive.

In conclusion, this research not only achieves its aim of understanding the influence of time perception on financial decision-making through Sad Ripu control and time management but also provides broader implications for theory, practice, and policy. By foregrounding subjective time as a core component of behavioural finance, the study contributes fresh perspectives to global discussions on financial behaviour and offers practical strategies for fostering stable, adaptive, and intelligent financial decision-making across cultural contexts. These findings broaden behavioural finance perspectives by demonstrating that temporal cognition, emotional regulation, and time-based behavioural control jointly predict financial judgement in culturally embedded decision environments.

### **Conclusion**

This study demonstrates that time perception, Sad Ripu control, and time management significantly influence financial decision-making, both directly and indirectly. The findings confirm that subjective temporal awareness does not merely affect decision urgency but also interacts with culturally grounded emotional regulation (Sad Ripu) and behavioural self-management (time management) to shape financial choices. Notably, the positive effect of time perception on Sad Ripu control suggests that, within the Balinese cultural context, faster perceived time

may enhance self-awareness and emotional restraint, challenging conventional assumptions of purely negative outcomes from temporal pressure. Overall, this research fills a critical gap in the literature by examining the combined influence of psychological, cultural, and behavioural factors on financial decision-making, integrating PTP, TPB, and Sad Ripu in a unified conceptual model. The study offers both theoretical novelty and practical relevance, providing insights applicable to individual, organisational, and policy levels across global contexts.

### **Key Functions for Management and Managerial Practices**

The findings of this study offer important guidance for management and managerial practices. First, managers and employees can leverage awareness of time perception to improve discipline, emotional control, and prioritisation, which in turn supports more rational, deliberate, and strategic financial decisions. Second, organisations can incorporate culturally informed emotional regulation frameworks, such as Sad Ripu, into training programmes to foster responsible and sustainable financial behaviour among staff or clients. Third, effective time management should be emphasised not only for operational efficiency but also as a mechanism for improving decision quality under conditions of temporal pressure. Furthermore, insights from this research can guide financial institutions, fintech companies, and educational organisations in developing programmes that integrate time awareness, emotional regulation, and structured time management, applicable in culturally diverse and volatile economic environments. Finally, policymakers and managers can use these findings to develop interventions that promote rational financial behaviour, economic resilience, and adaptive strategies for individuals and organisations operating in the fast-paced digital economy.

### **Limitations and Recommendations for Future Research**

Despite its contributions, this study has several limitations. The research was conducted in

Denpasar, Bali, which may limit the generalisability of findings to other cultural contexts where perceptions of time and emotional regulation differ. Additionally, the cross-sectional design, with data collected at a single point in time, restricts the ability to infer causality or observe long-term effects of time perception and Sad Ripu control on financial decision-making. The reliance on self-reported measures may also introduce bias, including social desirability and subjective interpretation of temporal and emotional experiences. One limitation of this study is that financial decision-making was measured using a self-report scale, which reflects respondents' perceived decision behaviour rather than objectively verified financial outcomes. Although this approach is common in behavioural finance research, self-reported measures may be influenced by response bias or overconfidence. Future research may therefore incorporate objective indicators such as savings behaviour, investment performance, or debt management records to strengthen measurement validity. Future research should consider cross-cultural comparisons to examine whether the interplay of time perception, emotional control, and time management holds across different societies and economic settings. Longitudinal studies would allow researchers to assess causal relationships and track changes in financial decision-making over time. Given the increasing influence of digital finance and cryptocurrency, subsequent studies could explore how virtual financial environments interact with time perception and emotional regulation. Finally, experimental approaches that manipulate perceived time or emotional regulation interventions could provide a more rigorous understanding of their direct and indirect effects on financial decision-making.

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### Ethical Statement

The study was performed in compliance with the Helsinki Declaration and was approved by the Ethics Committee of Universitas Pendidikan Nasional. The research involved anonymous survey data collected from participants, ensuring that no personally identifiable information was recorded. All participants were informed about the purpose of the study, the voluntary nature of

their participation, and their right to withdraw at any time. Their responses were used solely for analysis and reporting, with strict adherence to confidentiality and data protection principles.

#### **Conflict of Interest Statement**

The authors have no conflicts of interest to declare, financial or otherwise.

#### **Author Contribution Statement**

IGNOA contributed to the study's conceptualisation, designed the methodology, and supervised the overall research process. KWSPP was responsible for data collection, cleaning, statistical analysis, and manuscript preparation. Both authors reviewed and approved the final version of the manuscript.

#### **Informed Consent**

Participants provided informed consent prior to completing the survey. They were assured that

their names and personal survey results would be kept confidential and only used in the aggregate for data analysis and research findings.

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#### **Data Availability Statement**

The tabulated data that supporting this study's findings are available upon reasonable request from the corresponding author. Raw data with identifiable information is not shared to maintain participant confidentiality.