Xavier Institute of Management XIM University

Course Name	Behavioral Economics for Decision Making
Programme	MBA-BM
Batch	2023-25
Term	Six
Credits	Three
Course Instructor	Prof. Biswa Swarup Misra

1.Course Description and Objectives

What this Course is all about?

Behavioural economics uses psychological foundations to improve the explanatory power of economics. The standard economic theory provides guidance on decision making with the central assumption that economic agents are rational. The assumption of rationality is appealing as it connotes that individual act in their best self interest. However, in the real world, people act in a manner that are far from rational under many circumstances. This is because rationality demands too much from the human mind in terms of cognitive abilities to process information, foresight and immunity to emotions and their environment. Behavioural economics recognises the frailty of the human mind and its vulnerability to emotions, biases and heuristics in decision making. Thus, it replaces the notion of rationality with bounded rationality, a notion that people are rational subject to their cognitive abilities and biases. Behavioural economics deals with decision making when there is a departure from the central notion of rationality characterising the economic agents. For instance, the standard economic theory postulates that rationality will ensure a symmetric response to gains and losses of an equal amount of money. However, insights from behavioural economic suggest that due to a psychological phenomenon of loss aversion, people experience aggravation of higher order in losing a sum of money as compared to the pleasure associated with gaining equivalent amount of money. The prospect theory under behavioural economics as opposed to the expected utility theory provides a more accurate description of decisions undertaken under risk and uncertainty.

Why this Course? The course will help the students in two distinct ways. First, learnings form the course will help to guard against strategies employed to take advantage of psychological vulnerabilities for improved decision making at an individual level. Second, the student will be able to appreciate how the physiological underpinning of human behaviour is leveraged by policy makers using nudging strategies.

How is this course organised? The course is divided into four modules. The first module discusses the principles as well as theoretical foundations of behavioral economics. The application of these principles for individual decision making and strategic interactions are discussed in the second and the third Module, respectively. The use of behavioural economics from a welfare point of view is discussed in Module-4.The Session Plan provided below describes the coverage of broad topics in the course.

Objective

The objective of the course is to introduce the various psychological influences on decision making. The course will discuss theoretical constructs which explain decisions guided by emotion, psychological biases, and heuristics. The course aims at developing competencies of participants to appreciate why behaviour in the real world deviates from that predicted by the standard economic theory. The course will also help students to understand how nudging strategies are used for better policy making.

3. Course Content

- Characterization of automatic and reflective system
- Bounded rationality
- Biases and Heuristics
- Base rate fallacy
- Conjunction fallacy
- Expected Utility Theory of Decision making under Risk
- Certainty equivalent and Risk premium
- Violation of Axioms of Expected Utility Theory
- Allais Paradox, Ellsberg Paradox
- Prospect theory
- Time inconsistent preferences
- Mental Accounting
- Behavioral Game theory
- Nudging

3. Learning Outcomes:

CLO 1: Be able to appreciate the psychological influences such as anchoring and framing on decision making.

CLO 2: Be able to learn the prospect theory for decision making under risk and uncertainty.

CLO 3: Be able to learn the implication of endowment effect and sunk costs for mental accounting.

CLO 4: Be able to appreciate how behavioral aspects influence equilibrium in game theory.

CLO 5: Be able to understand how nudging strategies are used in policy making

4. Session Plan(How Part Explained)

Sessions	Topics	Session Learnings	Reading Materials		
1	Introduction to	What is behavioral	Nick Wilkinson and		
	Behavioral	Economics and why there is	Matthias Klaes, An		
	Economics and the	a need for Behavioral	Introduction to Behavioral		
	notion of Bounded	Economics	Economics		
	rationality	What is bounded rationality	Chapter-1		
2	Menu Dependence	Decoy effect	1. The Compromise and		
		Attraction effect versus	Attraction Effect		
		Compromise Effect	through Frame		
			Poterack		
3-4	Neoclassical	Characteristics of System-1	1. Tversky, Amos and		
	Rationality versus	and System-2	Daniel Kahneman		
	Logical Rationality	Popular Heuristics	(1974), 'Judgment		
		Hot versus Cool system	under uncertainty:		
		,	heuristics and		
			Vol 185 Issue		
			4157. pp. 1124-		
			1131		
5-7	The heuristic	Biases under heuristic	2. Richard Thaler,		
	approach to	approach-	Nudge: Improving		
	decision making	Representativeness,	Decisions on Health,		
		Base rate fallacy	Wealth, and Hanningss (2008		
		Conjunction fallacy	coauthored with Cass		
		Substitution,	R. Sunstein)		
		Availability,	3. Tversky, Amos and		
		Affect,	Daniel Kahneman		
		Anchoring,	(1974), 'Judgment		
		Framing,	under uncertainty:		
		Cognitive and Emotional	Science, Vol 185 Issue		
		biases	4157, pp. 1124-1131		
		Applications in Advertising			
8	Ecological	Why the need for Heuristics	1. Models of		
	Rationality	Bias-Variance trade off	Bounded		

		Fast and frugal Heuristics	Rationality: The	
			Approach of Fast	
			and Frugal	
			Heuristics	
			Author(s): Ulrich	
			Hoffrage and	
			Torsten Reimer	
			Source:	
			Management	
			Revue 2004. Vol.	
			15 No 4 Special	
			Issue: New	
			Directions in	
			Organizational	
			Behaviour (2004).	
			pp. 437-459	
			2. The power of	
			simplicity: a fast-	
			and-frugal	
			heuristics	
			approach to	
			performance	
			science Markus	
			Raab and Gerd	
			Gigerenzer	
9-11	Decision making	The tenets of expected	Nick Wilkinson and	
	under risk and	utility theory	Matthias Klaes, An	
	Uncertainty	Axioms of EUT-	Introduction to Behavioral	
		Independence, Invariance,	Economics	
		Dominance and Transitivity	Chapter-5	
		Defining Risk Aversion		
		Certainty equivalent and		
		risk premium		
		St. Petersburg Paradox		
		Anomalies of EUT- Allais		
		paradox, the Ellsberg		
		paradox		

12-13	Prospect Theory	Critiques of EUT-Kahneman and Tversky classic experiments Tenets of the Prospect Theory Utility function versus value function Reference-Dependent Preferences Probability weight function Decision making under Risk & Uncertainty-Four fold approach to decision	 Nick Wilkinson and Matthias Klaes, An Introduction to Behavioral Economics Chapter-5 Kahneman and Tversky (1979), Prospect Theory: An Analysis of Decision Under Risk, Econometrica, Vol. 47, No.2, pp. 263–291 Prospect Theory in the Wild Colin
		Applications of Prospect Theory in Stock Market	Camerer
14-15	Mental Accounting,	What is Mental Accounting, Framing Mental Accounts, Fungibility & Labels Principles of Mental Accounting to explain how people spend Budgeting and fungibility Choice bracketing and dynamics- Disposition effect Sunk costs Myopic Loss aversion Application-Equity Premium Puzzle	Nick Wilkinson and Matthias Klaes, An Introduction to Behavioral Economics Chapter-6
16-17	Decision making under strategic interactions	Game theory Nash Equilibrium Sub game perfect Nash equilibrium Behavioral Game theory Irrational players and equilibrium iterated games signaling, learning	Games of Strategy- Avinash K. Dixit , David H. Reiley Nick Wilkinson and Matthias Klaes, An Introduction to Behavioral Economics Chapter-9 Teaching notes

		Application-Bargaining and		
		Self Serving bias		
18-20	Behavioral economics and public policy	Self Serving bias Choice architecture Importance of Nudging Nudge-Typology Guiding principles in designing Nudge strategy Nudging as a consumer influence strategy Nudging used in Practice for	1.	Richard Thaler, Nudge: Improving Decisions on Health, Wealth, and Happiness (2008, coauthored with Cass R. Sunstein)
		Behavioral Insight Team in UK Application- Nudging Energy Efficiency Behavior Limitations of Nudging		

5. Required Textbook and Reading Material

Essential Reading

- Nick Wilkinson and Matthias Klaes, An Introduction to Behavioral Economics, 2nd Edition, Palgrave Macmillan.
- 2. E. Cartwright, Behavioural Economics (2011), Routledge

Reference Material

Books

- 2. D. Kahneman, Thinking Fast and Slow (2011), Allen Lane, Penguin Book
- 3. Daniel Kahneman and Amos Tversky, Choices, Values, and Frames(2010), Cambridge University Press
- 4. Dan Ariely, Predictably Irrational: The Hidden Forces that Shape Our Decisions(2010), Harper Collins
- 5. Richard Thaler, *Nudge: Improving Decisions on Health, Wealth, and Happiness* (2008, coauthored with Cass R. Sunstein)
- 6. Richard Thaler, Misbehaving: The Making of Behavioral Economics (2015)

Journal Articles

- 4. Richard Thaler(2016), Behavioral Economics: Past, Present, and Future, *The American Economic Review*, Vol.106, No.7, pp. 1577-1600
- 5. Kahneman and Tversky (1979), Prospect Theory: An Analysis of Decision Under Risk, *Econometrica*, Vol. 47, No.2, pp. 263–291.
- 6. Thaler, Richard H. (1988), Anomalies: The Ultimatum Game, Journal of Economic Perspectives, Vol. 2, No.4, pp. 195-206
- 7. Barberis, N.C. (2013), 'Thirty Years of Prospect Theory in Economics: A Review and Assessment,' *Journal of Economic Perspectives*, Vol.27, No.1, pp. 173-196

- 8. Tversky, Amos and Daniel Kahneman (1974), 'Judgment under uncertainty: heuristics and biases,' *Science*, Vol. 185, Issue 4157, pp. 1124-1131
- 9. Gino, Francesca(2017), The Rise of Behavioral Economics and Its Influence on Organizations, Harvard Business Review, October 10, 2017
- 10. Utpal M. Dholakia(2016), Why Nudging Your Customers Can Backfire, Harvard Business Review, April 15, 2016
- 11. Thaler, R.H (1999), Mental Accounting Matters, *Journal of Behavioral Decision Making*, Vol.12, No.3, pp.183-206
- 12. Kahneman, Daniel & Knetsch, Jack L & Thaler, Richard H.(1991), The Endowment Effect, Loss Aversion, and Status Quo Bias: Anomalies, *Journal of Economic Perspectives, Vol. 5, No.1*, pp. 193-206
- 13. Prospect theory in the wild: Evidence from the field Camerer, Colin F. (1998) Prospect theory in the wild: Evidence from the field. Social Science Working Paper, 1037. California Institute of Technology, Pasadena, CA.
- 14. Ernst Fehr & Klaus M. Schmidt(1999), A Theory of Fairness, Competition, and Cooperation, , *Quarterly Journal of Economics*, Vol. 114, No. 3, pp. 817-868
- 15. Matthew Rabin(1993), Incorporating Fairness Into Game Theory and Economics, *The American Economic Review*, Vol. 83, No. 5, pp. 1281-1302
- 16. Colin F. Camerer(1997) Progress in Behavioral Game Theory, Journal of Economic Perspectives, vol. 11, no. 4, pp. 167-188

Component	Weightage (%)	Assessment of Course Leaning Outcome(s)
Quiz	15	CLO 1
Mid Term	25%	CLO 2 and CLO 3
End-term	40%	CL0 2, CLO3, CLO 4, and CLO 5
Group Assignment	10%	CLO 5
Classroom Participation	10%	

6. Assessment Scheme

7. Academic Discipline and Integrity

- Students are expected to come to class on time.
- Students are expected to come to the class prepared after doing the necessary preparatory studies
- Late coming will award no attendance and sometimes barring from the class, if the reason for coming late is found not satisfactory.

• Utmost care will be taken to *maintain* class decorum, *follow* the exact evaluation norms, *conduct* fair examinations, fair and transparent evaluation of examination papers, etc.

8. Mapping Course Leaning Outcomes (CLO) with the Program Learning Goals (PLG)

PLG#	.G# Program Learning Trait		Addressed by	
	Goals		Course	
			Yes	No
PLG 1	Functional and	The students will demonstrate	\checkmark	
	Business Skills	understanding of elements of all		
		functional areas		
			1	
PLG 2	Analytical Skills	The students will use analytical	N	
		techniques to identify a business		
		problem, and suggest a solution	1	
PLG 3	Collaboration and	The students will exhibit	\checkmark	
	Teamwork	voluntary cooperation and		
	Attributes	effective teamwork in a group		
		setting		
PLG 4	Ethical	The students will understand the		\checkmark
	Responsibility	ethical complexities of		
		conducting business. The		
		students will adopt techniques in		
		scenarios involving ethical		
		dilemma and offer resolution		
PLG 5	Communication	The students will produce		\checkmark
		reasonably good quality business		
		documents. The students will		
		become effective and confident		
		communicators		