Understanding Channel Entropy
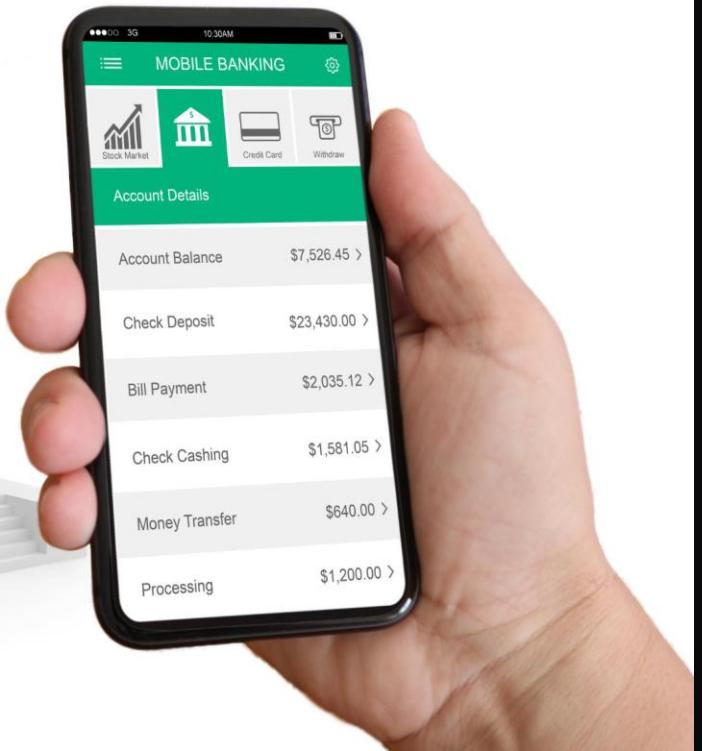
Core Definition and Concept

Channel entropy quantifies how predictable a customer's choice of banking channels is over time.

Entropy Score Levels

Low scores indicate consistent channel use, medium scores show moderate variety, and high scores reflect diverse channel usage.

Business Applications

Entropy insights help tailor services, improve experiences, detect anomalies, and identify fraud or account compromise.

Information Theory Analogy

Channel entropy relates to uncertainty in information theory, with higher entropy representing more unpredictability.

Coffee Analogy for Entropy Levels

ENTROPY LEVEL	COFFEE ANALOGY	BANKING BEHAVIOR
Low (≈0)	Always Papaye	Uses one channel consistently (e.g., Mobile App)
Medium (0.5–1.5)	Starbucks & Papaye	Uses 2–3 channels regularly
High (1.5+)	Starbucks, Papaye, local cafés, home brew	Uses many channels almost equally

Real-World Data and Interpretation

ACCOUNT NUMBER	PREFERRED CHANNEL	CHANNEL ENTROPY
2045...0240	Branch/Teller	1.78 (High Diversity)
2046...9165	Mistral	2.34 (Very High Diversity)
2085...8815	System User	2.05 (High Diversity)