

# CSE 6224 Software Requirements Engineering Trimester 2510

# Kano Model

**Project title:** 

Student Club Management System with Budget and Venue Integration

**Tutorial Section: TT5L** 

**Group Name:** TT5L\_G1

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#### 1. Introduction

This plan details how the project team will discover, validate, and prioritise requirements for the Student Club Management System (SCMS). It integrates four complementary elicitation techniques with the Kano Model, ensuring each candidate feature is categorised based on user-perceived value: Dissatisfiers (Must-Have), Satisfiers (Performance), and Delighters (Exciters). The resulting categorisation will drive release sequencing, resource allocation, and risk management, fully aligned with the project's Vision & Scope document.

## 2. Objectives

- Capture 100 % of stakeholder, policy, and system-integration needs.
- Clearly classify requirements into Kano categories: Must-have (Dissatisfiers), Performance (Satisfiers), and Exciters (Delighters).
- Establish a robust foundation for system design decisions and feature prioritization.

#### 3. Elicitation Approach

#	Technique	Purpose &	Primary	Key Output	Kano Focus
		Rationale	Target(s)		
T1	Observation of Existing Systems	Identify tacit user pain points, workflow gaps, and baseline expectations	Project team	Recorded MP4 and meeting logs	Dissatisfier, Satisfier
		through direct observation.			
T2	Online Survey (Google Form)	Gather broad student preferences and measure perceived importance of	Club members, prospective members	CSV data, analytical charts	Satisfier

		features through			
		quantitative			
		Kano-question			
		pairing.			
Т3	Brainstormi	Facilitate	Project team	Recorded	Dissatisfier,
	ng (Team	creative and		MP4, meeting	Satisfier,
	Meeting)	collective idea		log,	Delighter
		generation		summarised	
		through open		ideas	
		team dialogue,			
		uncovering			
		innovative			
		requirements.			
T4	Document	Derive essential	Institutional	Highlighted	Dissatisfier
	Analysis	compliance	documents	PDFs, detailed	
		requirements,		excerpt notes	
		institutional			
		policies, and			
		mandatory			
		guidelines.			

# 3.1 Conducting Elicitation Techniques

#### T1 Observation

- Identify five benchmark systems: UPM ST Putra, Eventbrite RSVP, PUTRA Presence,
   Campus Labs, Cornell CampusGroups.
- Conduct a recorded MS Teams session; team members narrate and demonstrate key workflows.
- Capture video recordings and automated transcripts for analysis.

## **T2 Online Survey**

- Design paired Kano survey questions.
- Distribute surveys through student club Telegram groups for one week.
- Export survey data as CSV and visualise responses through stacked bar charts for further analysis.

## T3 Brainstorming (Meeting)

- Host a recorded MS Teams meeting.
- Conduct round-robin verbal idea sharing.
- Facilitator logs ideas in real-time, clarifying and summarising each.
- Archive recording, meeting log, and summarised idea list in the project repository.

## **T4 Document Analysis**

- Identify relevant institutional documents (Manual Pelaksanaan Aktiviti Pelajar V5, Panduan Tuntutan Kewangan).
- Highlight requirements-specific paragraphs and provide annotations explaining extracted rules.
- Save annotated PDFs and summarise findings in a structured log table.

# 4. Roles & Responsibilities

Team Member	Role	Key Responsibility
TAI ZHI XUAN	Elicitation Lead	Coordinate activities, oversee timeline, document highlights, and extractions.
SAY SI TING	Survey Coordinator	Develop, distribute, and analyse surveys.
HAZIM ELAMIN MOHAMED ALI MUSA	System Analyst	Observe existing systems.
IZZA NELLY BINTI MOHD NASIR	Scribe	Consolidate notes and maintain Kano requirement matrix.

# 5. Kano Model

#	Requirement Statement	Kano Category		
Dissa	Dissatisfiers (Must-have basics)			
1	Secure online club registration	Dissatisfier		
2	Secure login authentication	Dissatisfier		
3	Club officers can assign roles (President, Treasurer, etc.)	Dissatisfier		
4	User roles clearly separated (member / officer / admin)	Dissatisfier		
5	Leader can create new events	Dissatisfier		
6	Leader can view & track club budget balance	Dissatisfier		
7	Admin can approve or reject budget requests	Dissatisfier		
8	System sends automatic notifications on approvals / rejections / updates	Dissatisfier		
9	Accessibility features (high contrast, font resize, etc.)	Dissatisfier		
10	Password reset & account-recovery workflow	Dissatisfier		

11	Mandatory audit trail for all financial actions	Dissatisfier
12	Compliance with Malaysian PDPA & consent management	Dissatisfier
13	Minimum 99 % system uptime during semester weeks	Dissatisfier
Satisfie	ers (Performance needs)	
14	Efficient, guided event-creation wizard	Satisfier
15	Real-time budget-spending updates	Satisfier
16	Searchable venue database (location, size, availability)	Satisfier
17	RSVP system for members to register for events	Satisfier
18	Attendance tracking via QR / NFC at events	Satisfier
19	Ability to export financial data to CSV	Satisfier
20	Interested students can apply to join a club online	Satisfier
21	Personal dashboard (upcoming events, budget graphs, reminders)	Satisfier
22	Reminder alerts before "interested" events	Satisfier
23	In-system messaging between club members	Satisfier
24	Bulk import / export of membership roster (Excel/CSV)	Satisfier
25	Calendar (ICS) subscription for approved club events	Satisfier
26	Wait-list auto-promotion when event capacity frees	Satisfier
27	Drag-and-drop upload of supporting documents & images	Satisfier
Deligh	ters (Exciters)	
28	Auto-suggest optimal venue based on event type & head-count	Delighter
29	Gamification (badges / points) for active participation	Delighter
30	Club-leader analytics (attendance & budget trends)	Delighter

31	Mobile push notifications for critical updates	Delighter
32	Recommendation of similar clubs based on interests	Delighter
33	QR-code sign-in to web account via mobile app	Delighter
34	AI-driven attendance prediction & capacity planning	Delighter
35	Augmented-reality campus map guiding to event venues	Delighter
36	Campus-wide club leaderboard & achievements dashboard	Delighter
37	Voice-assistant quick actions in mobile app	Delighter

#### 6. Elicitation Activities Schedule

Week	Activity	Output Due
W4	Observation session	Recorded MP4
W4	Survey design, pilot, and distribution	Live Google Form link
W5	Policy & finance document analysis	Mark-up PDFs
W5	Brainstorming team meeting	Recorded MP4
W6	Kano model analysis session	Validated Kano requirement matrix
W6	Task 4 evidence consolidation and publication to GitHub	GitHub pull request link with evidence

# 7 Why the Kano Model Fits SCMS

The Kano Model aligns perfectly with SCMS objectives due to its structured approach in clearly separating essential compliance (Dissatisfiers), measurable performance enhancements (Satisfiers), and innovation-focused features (Delighters). It ensures that compliance requirements (e.g., PDPA adherence, audit trails) receive immediate and non-negotiable prioritisation. Performance-driven features (e.g., real-time budget updates, venue search functionality) can be optimised for maximum stakeholder value. Innovative, yet non-critical

features (e.g., AI-driven venue recommendations, gamification elements) are carefully balanced to enhance user experience without compromising core deliverables. Moreover, this structured approach is enriched by data-driven insights derived from the elicitation techniques, ensuring robust evidence-based decisions.

#### 8. Justification for Using the Kano Model and Selected Techniques

The Kano Model explicitly prioritises requirements by distinguishing between essential baseline compliance needs, valuable performance improvements, and innovative excitement-generating features. Document Analysis ensures non-negotiable requirements derived from institutional policies are correctly identified as Dissatisfiers. Online Surveys provide quantitative data directly mapping user satisfaction, effectively capturing and validating Satisfiers. Observation sessions pinpoint actual user interactions and implicit expectations, bridging Dissatisfiers and Satisfiers. Brainstorming meetings encourage creative exploration and collaborative refinement of potential Delighters, ensuring comprehensive, innovative ideas surface through dialogue. Collectively, these techniques deliver a balanced, justified, and robust set of requirements, fully informed by diverse perspectives, supporting strategic prioritisation aligned with stakeholder needs and project constraints.

#### 9. Conclusion

This elicitation plan, strengthened by the Kano Model and diverse elicitation methods, provides a detailed roadmap for systematically capturing and categorising SCMS requirements. By leveraging clearly defined roles, responsibilities, and activities, the project team will effectively manage risks, prioritise features accurately, and ensure the delivery of a robust system aligning with institutional policies and student expectations.