

# Results - Convoy and Explorer Discovery & Prioritization

Card Sorting to ...

**DEFINE THE IA**

MaxDiff to ...

**UNDERSTAND PRIORITIES**

KANO to ...

**FIND THE DELIGHTS**

## Overall Results



### What this product fundamentally needs to be

The app's value is defined by how well it helps users confidently choose and shape a drive before it starts; everything else is a contextual extension that earns relevance only in specific moments or for specific users.

- Routes are the mental, functional, and emotional core
- Group driving is situationally critical, not universally important
- Performance and memory features enrich the ecosystem but do not define adoption
- Clear naming, modes, and context matter more than structural purity

### Explorer and Convoy should live in the same product, but not as equal, always-visible pillars.

Explorer is the core value engine. Convoy is a situational mode that activates on top of it.

This three-part study combines Card Sorting, MaxDiff, and Kano to build a coherent understanding of how users conceptualize the app, what they prioritize when forced to choose, and how different features create or protect value. While each method addresses a different question and operates on a different level of feature granularity, together they converge on a highly consistent picture.

## 1. One clear core: route planning is the product

Across all three studies, route planning and route understanding emerge as the **primary value anchor** of the entire experience.

- Card Sorting shows that users mentally organize the app around the route as the central object. Planning, shaping, previewing, and evaluating routes form the most stable and confident cluster.
- MaxDiff demonstrates that when users are forced to make trade-offs, they overwhelmingly protect pre-drive route planning and control features over all others.
- Kano confirms that key route capabilities define baseline competence and scalable value. Route search and route preference control are true hygiene factors, while other planning capabilities directly increase satisfaction as execution quality improves.

### Conclusion:

Users do not perceive this as a general navigation app with added features. They perceive it as a decision-support tool for choosing, shaping, and understanding a drive before it starts. If this core is weak, no secondary features compensate for it.

This justifies:

- making Routes or Plan Drive the primary entry point,
- investing disproportionate effort into planning clarity, control, and preview,
- and evaluating all other features by how well they support this core moment.

## 2. Planning first, everything else second

The studies reveal a sharp structural distinction between:

- features that help users **decide what to drive**, and
- features that become relevant **once that decision is already made**.

MaxDiff shows a clear breakpoint after route planning and route evaluation features. Everything below this line is consistently traded away under constraint. Kano reinforces this by showing that most non-planning features carry low dissatisfaction risk when missing.

### Conclusion:

From a user perspective, there is a fundamental divide between core planning value and contextual extensions. This is not a subtle gradient, but a clear step change.

This supports:

- separating core planning experiences from secondary layers in the IA,

- sequencing feature exposure over time,
- and resisting the temptation to treat all capabilities as equal pillars.

### 3. Route understanding features are value multipliers, not anchors

Features such as elevation, technical difficulty, road surface quality, safety warnings, and thematic browsing consistently sit just below the core planning tier.

- Card Sorting places them firmly within the Routes cluster.
- MaxDiff shows they add value, but do not initiate engagement.
- Kano classifies most of them as performance features or strong delighters, meaning quality of execution matters more than mere presence.

#### Conclusion:

These features work best as embedded decision aids within route detail and planning flows. They refine, validate, and de-risk choices, but they do not define why users come to the app.

They should:

- deepen route detail views,
- support confidence and anticipation,
- and scale in value through execution quality rather than visibility.

### 4. Group driving is structurally distinct, but situationally critical

Group and convoy features show an important but nuanced pattern.

- Card Sorting reveals a very strong internal cluster with its own logic, language, and mental model. Users clearly separate group driving from solo driving.
- MaxDiff shows these features scoring low overall, because they only matter in specific situations.
- Kano classifies them as strong or contextual delighters, with low dissatisfaction when absent but high satisfaction when present for the right users.

#### Conclusion:

Group driving is not a secondary feature set, but it is also not universally relevant. Its importance is conditional, not continuous.

This strongly supports treating Group Drive as:

- a mode rather than a parallel top-level pillar,
- highly salient and mission-critical when activated,

- and intentionally quiet or invisible when not relevant.

This resolves the apparent tension between “low priority” and “high importance” .

## 5. Performance and post-drive experiences are optional layers, not core value

Performance analysis, comparisons, trip recording, and memory features consistently land outside the core.

- Card Sorting shows a clear conceptual separation between Trips and Performance, with different emotional tones.
- MaxDiff shows these features are readily traded away to protect planning quality.
- Kano places most of them in contextual or low-impact delighter categories.

### Conclusion:

These features enrich the overall ecosystem and support reflection, storytelling, or niche motivations, but they do not define the product’s value proposition.

They should:

- be opt-in or contextually surfaced,
- target specific user segments,
- and avoid competing with planning or group driving for prominence.

## 6. Settings are expected utilities, not experiential value

All three methods consistently position settings and profile features as background utilities.

They are necessary, but never aspirational, and should remain structurally separate and visually de-emphasized.

## 7. Overlap is a feature of lived experience, not a flaw in structure

Across studies, hesitation and ambiguity appear primarily around cross-phase or cross-context features. This does not indicate confusion. It reflects the reality that driving experiences span preparation, execution, and reflection, and that some capabilities naturally surface in multiple moments.

### Conclusion:

Rigid, single-owner categorization would increase cognitive load. Contextual surfacing, clear naming, and mode-based behavior matter more than structural purity.

## Card Sorting (N=25)

### ★ What users think this product *is*

Users organize the app around the driving lifecycle, with the route as the central anchor and group driving, performance, and memories understood as contextual layers rather than equal pillars.

- Routes are the conceptual spine
- Group Drive is mentally distinct, not a sub-feature
- History and Performance are clearly separated in people's minds
- Settings are perceived as background utilities

x Calc2.xlsx

Search for routes	Browse routes by	Explore routes vi	Filter routes by d	See photos, ratin	View a route ove	Review elevat
Browse routes by	1					
Explore routes vi	0.84	1				
Filter routes by d	0.88	0.72	1			
See photos, ratin	0.64	0.39	0.47	1		
View a route ove	0.68	0.52	0.52	0.39	1	
Review elevation	0.44	0.25	0.32	0.25	0.35	
See road surface	0.36	0.19	0.22	0.28	0.19	0.
Modify an existin	0.56	0.39	0.43	0.28	0.43	0.
Avoid highways,	0.48	0.25	0.28	0.28	0.22	0.
Build a custom ro	0.76	0.52	0.61	0.32	0.43	0.
Get automaticall	0.8	0.52	0.56	0.35	0.43	0.
See who is joining	0.08	0.04	0.06	0.06	0.09	0.
Coordinate and r	0.12	0.04	0.06	0.04	0.02	0.
Form a convoy w	0.12	0.04	0.06	0.02	0.09	0.
See the real time	0	0	0.02	0.02	0	0.
Get alerts when s	0	0	0	0	0	0.
Ensure everyone	0.04	0.02	0.09	0.06	0.02	0.
Broadcast hazard	0	0	0.02	0	0	0.
Chat privately wi	0	0	0.04	0	0	0.
Automatically re	0.12	0.04	0.06	0.09	0.04	0.
Capture vehicle	0	0	0	0.04	0.02	0.
Add notes, photo	0.16	0.06	0.06	0.19	0.14	0.
View a history of	0.04	0.09	0.02	0.04	0.06	0.
See heat maps o	0.12	0.06	0.09	0.19	0.09	0.
Relive a drive wit	0.12	0.14	0.06	0.14	0.11	0.
Compare driving	0.08	0.06	0.06	0.16	0.04	0.
Share a full road	0.04	0.04	0.02	0.11	0.06	0.
See rankings on :	0.44	0.25	0.25	0.35	0.28	0.
Plan routes on p	0.6	0.43	0.47	0.35	0.35	0.
Follow the trip in	0.12	0.06	0.06	0.04	0.09	0.
Use navigation a	0.16	0.09	0.09	0.09	0.11	0.

## Meaning

- 0.80 – 1.00 | Very strong association
- 0.60 – 0.79 | Strong association
- 0.40 – 0.59 | Moderate association

- 0.20 – 0.39 | Weak association
- 0.05 – 0.19 | Very weak association
- 0.00 – 0.04 | No meaningful association

⚠  $\geq 0.6 \rightarrow$  “Users strongly associate these”

**0.4–0.6** → “Contextually related”

$\leq 0.2 \rightarrow$  “Users don’t see these as belonging together”

## Interpretation

### Route planning & shaping

“Deciding, shaping, and preparing a route”

- Search / browse / explore routes
- Filter routes
- Photos & highlights
- Route overview
- Elevation & speed profile
- Road surface & safety
- Modify route
- Avoid highways
- Build custom route
- Auto-generated routes
- Plan routes on phone and send to car

### Group / convoy / coordination

This is not “social features sprinkled around navigation”. This is a **mode of driving** with its own internal logic.

- See who is joining a drive
- Coordinate meeting point

- Form a convoy
- Real-time convoy location
- Alerts when separated
- Ensure same navigation route
- Broadcast hazards
- Private chat

## Performance & telemetry

Users separate “What happened” (history) from “How well did I perform” (analysis)

- Automatically record GPS trajectory
- Capture vehicle data
- Heat maps of speed & intensity
- Compare performance
- Rankings on route segments

## Post-drive memory & storytelling

Memories ≠ analytics.

- Add notes, photos, videos
- Relive a drive
- Share a roadbook
- View past trips

## Bridge items

They are **cross-phase utilities**

- Follow the trip live with waypoints
- Use navigation & safety features offline

## Recommended Clusters based on Co-Occurance and Namings

⚠ According to the Elbow Method the statistical "perfect amount" of categories is 4 for the top-level IA and 6-7 for feature modules.

1. Routes
2. Group Drive
3. Trips
4. Performance
5. Profile & Settings

Everything else is:

- a mode
- a state
- or a cross-cluster surface

## 1. Routes

(Route planning, shaping, and preparation)

Why this name

- “Routes” is the strongest, most stable noun across the data
- Planning, searching, shaping, previewing all co-occur tightly
- Users repeatedly use “Route” , “Routes” , “Plan route” , not “Navigation”

What belongs here

- Search / browse / explore routes
- Filters, distance, duration, waypoints
- Route overview, photos, highlights
- Elevation, surface, safety preview
- Modify route, avoid highways
- Build custom route
- Auto-generated routes
- Send route to car
- Route wishlist, favorites

## **What does NOT belong here**

- Group coordination logic
- Live alerts as a primary concept
- Performance analysis
- Trip memories

## **2. Group Drive**

**(Driving together, coordination, communication)**

### **Why this name**

- “Group” dominates user language over “Convoy”
- Co-occurrence shows a very tight internal cluster
- This is clearly a mode of driving, not a sub-feature of routes

### **What belongs here**

- See who is joining
- Coordinate meeting point
- Form / manage convoy
- Ensure everyone follows the same route
- Real-time location of cars
- Separation / fall-behind alerts
- Broadcast hazards
- Group chat / communication

### **What does NOT belong here**

- Solo route planning
- Personal performance stats
- Trip memories

## **3. Trips**

**(History, recall, storytelling)**

### **Why this name**

- “History” , “Trips” , “Past trips” dominate user labels

- Memory and recall features cluster separately from performance
- “Trips” is neutral and extensible

### What belongs here

- Past trips
- Route history
- Trip recaps
- Relive a drive
- Add notes, photos, videos
- Share roadbook
- Scrapbook-like experiences

### What does NOT belong here

- Performance analytics
- Live driving features
- Planning tools

## 4. Performance

(Analysis, telemetry, comparison)

### Why this name

- Very clear semantic separation from “Trips”
- Users explicitly use “Performance”, “Stats”, “Analysis”
- Co-occurrence shows a tight analytical cluster

### What belongs here

- GPS trajectory
- Vehicle data (speed, G-forces, consumption)
- Heat maps
- Rankings
- Compare driving performance

### What does NOT belong here

- Memories and storytelling
- Planning

- Group coordination

## 5. Profile & Settings

(System, identity, configuration)

### Why this name

- Weakly clustered, but consistently separate
- Users default to “Settings” when unsure
- This is meta, not experiential

### What belongs here

- Profile
- Preferences
- Vehicle configuration
- Account / subscription
- Premium features

## Additional Info

⚠ Participants consistently **describe groups as intent- and mindset-based sections rather than strict feature groupings**. Their explanations converge around three primary dimensions: **where they are in the journey** (before, during, after a drive), **whether they are driving alone or with others**, and **their relationship to the route itself**. Routes act as the central anchor, while group driving introduces coordination and communication needs that feel categorically distinct from solo driving. **Post-drive reflection splits naturally into memory-oriented history and performance-oriented analysis**, with settings and profile features perceived as background utilities rather than core experiences.

### Description

#### 1. Journey-based mindset (very strong signal)

Many participants frame the groups as stages of a journey:

- **Before the drive**
  - planning

- searching
- preparing
- understanding the route
- safety considerations

- **During the drive**

- navigation
- live updates
- communication
- convoy awareness
- monitoring performance or conditions

- **After the drive**

- history
- memories
- photos
- reviewing metrics
- sharing and reliving

This appears repeatedly, even when people say they did *not* explicitly plan it that way.

### **Important nuance**

They use this *to explain their thinking*, but they do **not always want the IA literally split this way.**

It's a cognitive explanation tool, not always a navigation preference.

## **2. Solo vs group as a core divider (very strong signal)**

Another major axis is **who the drive is for:**

- **Individual / solo**

- planning a route
- reviewing personal performance
- solo trip history
- preferences and settings

- **Group / social**

- convoy

- coordination
- communication
- shared routes
- group rules and pacing
- shared memories

People repeatedly describe:

- “driving with others”
- “route with others”
- “group experience”
- “family vs friends vs group”

This is not cosmetic.

It's about **responsibility and cognitive load**.

### 3. Routes as the central anchor

Almost everyone treats **routes** as the core object:

- everything starts with a route
- routes can be:
  - searched
  - explored
  - planned
  - driven
  - shared
  - remembered

Even when categories differ, “the route itself” is consistently described as the *spine*.

This validates your co-occurrence result very strongly.

### 4. History vs performance are distinct in people's minds

Participants clearly separate:

- **Trip history / memories**
  - photos

- milestones
- scrapbook language
- reliving moments

from

- **Performance / stats**

- metrics
- rankings
- comparisons
- charts
- “like Strava”

They sometimes sit near each other, but people *describe them differently* and with different emotional tones.

## 5. Settings / profile = utility, not experience

Settings are consistently described as:

- “nuts and bolts”
- “utility”
- “behind the scenes”
- “things you toggle”
- “not the main thing”

They are rarely described with enthusiasm or narrative importance.

This supports keeping them structurally separate.

## Importance of Groups

⚠ There is **very strong consensus** around one core idea:

Route planning / route discovery is the primary value anchor of the entire experience.

Everything else is described as **supporting, enhancing, or contextual**, depending on situation and mindset.

## 1. Routes / Planning / Search (dominant, overwhelming signal)

This is by far the most frequently and confidently named “most important” group.

Participants describe it as:

- “the heart of the app”
- “the main agenda”
- “the sole essence”
- “imperative”
- “where the value is really brought in”

Key reasons they give:

- It determines *why* they would use the app at all
- It enables informed decision-making before committing to a drive
- It reduces risk, uncertainty, and cognitive load
- It allows optimization, discovery, and anticipation

This strongly validates:

- Routes as the primary IA anchor
- Planning and search as first-class citizens, not utilities

## 2. Group Drive / Coordination (strong but conditional)

This cluster is repeatedly described as:

- extremely important **when driving with others**
- irrelevant or secondary **when driving solo**

Typical language:

- “if the main aim is convoy driving”
- “when you’re organizing a group”
- “depends on whether I’m with others”
- “important in that moment”

What matters most here:

- coordination
- communication
- safety

- keeping everyone together
- shared understanding

## Interpretation

- Group Drive is not universally important
- But when it applies, it becomes mission-critical
- This supports treating it as a **mode-dependent primary section**, not a sub-feature

## 3. Navigation / During-drive features (important, but not aspirational)

Navigation is often named as important because:

- “it’s a navigation app”
- “it dictates whether it’s a good drive”
- “you need to get where you’re going”

But it’s described in a **hygiene-factor way**, not as the reason to adopt the product.

Participants often say:

- they’d expect it to work
- they wouldn’t explore it deeply
- it’s not what excites them

## Interpretation

- Navigation is table stakes
- It must be excellent, but it doesn’t define perceived value

## 4. Post-drive / History / Memories (nice-to-have, reflective)

This group is consistently framed as:

- valuable *after* the experience
- not essential for every trip
- emotionally meaningful, but optional

Language used:

- “not always important”
- “enhances the total package”
- “nice to look back”

- “digital scrapbook”

## Interpretation

- This is a secondary value layer
- It should not compete with planning or group driving for primacy

## 5. Settings / Preferences (background utility)

Settings are almost universally described as:

- necessary
- functional
- background
- not a reason to engage

Participants explicitly say:

- “you’re probably not changing it all the time”
- “nuts and bolts”
- “general settings in the background”

## Interpretation

- Confirms this should be structurally separate and de-emphasized

## Final Interpretation

Across all open questions, users demonstrate a **highly consistent mental model centered on the driving lifecycle**. **Route planning** is universally perceived as the **core activity** and the **natural starting point for any trip**. **Group driving, navigation, safety, and social features are understood as contextual layers** applied to a route rather than independent entry points.

Hesitation arises primarily from features that span multiple phases or contexts, indicating natural overlap rather than confusion. Clear, concrete naming strongly reduces cognitive load, while abstract or cross-phase features benefit from contextual presentation rather than rigid categorization. Overall, the findings strongly validate a lifecycle-based IA with route planning as the dominant entry point and group, live, and post-drive features surfaced contextually.

- making **Routes / Plan Drive** the primary top-level entry
- treating **Group Drive** as a mode, not a parallel IA
- allowing some features to live in multiple contexts
- resisting over-categorization

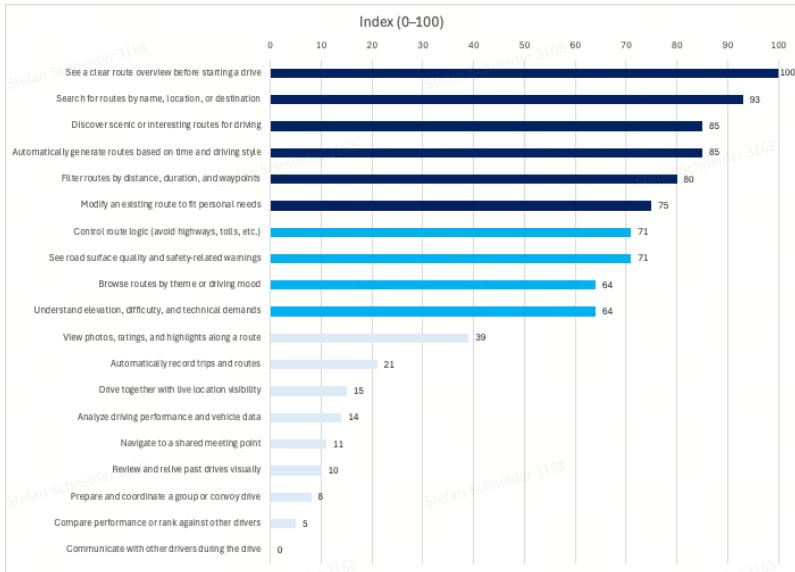
- prioritizing naming clarity over structural purity

# MaxDiff Analysis (N=87)

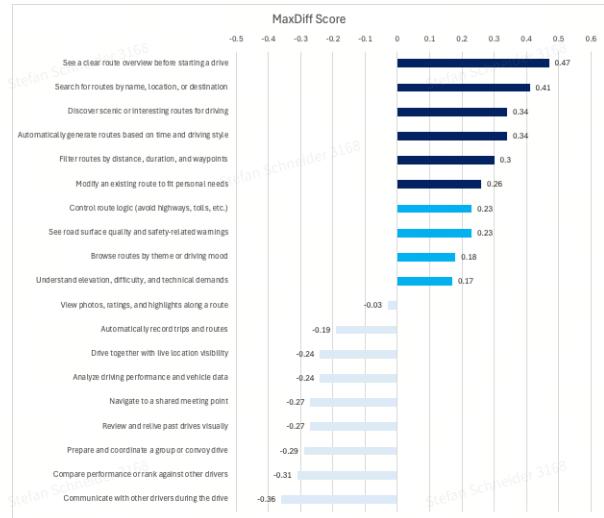
## ★ What users protect when forced to choose

When users must make trade-offs, they overwhelmingly prioritize pre-drive route planning and control, consistently trading away social, performance, and post-drive features.

- Planning quality is non-negotiable
- There is a sharp breakpoint between core value and optional extensions
- Secondary features cannot compensate for weak planning



Dark = Tier 1; mid = Tier 2; light = Tier 3



Dark = Tier 1; mid = Tier 2; light = Tier 3

The MaxDiff analysis reveals a clear and stable hierarchy of value across the evaluated features. When forced to make trade-offs, participants consistently prioritize capabilities that support planning, shaping, and understanding routes before a drive over social, performance, or post-drive features.

## 1. Core value is route planning and control

The highest-scoring features are all directly related to creating, discovering, and configuring routes before driving. In particular, seeing a clear route overview before starting, searching for routes by name or location, discovering scenic routes, automatically generating routes, and filtering or modifying routes dominate the ranking.

## **Interpretation:**

Users choose this product primarily to plan a drive well before they start driving. These features form the non-negotiable core of the experience. The strength and separation of this tier indicates that if route planning and control are weak, no amount of additional functionality compensates for it.

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## **2. Route understanding and evaluation act as supportive layers**

Features such as road surface and safety information, elevation and technical difficulty, and browsing routes by theme or driving mood score positively overall, but clearly below the core planning capabilities. Their scores cluster closely together, indicating limited differentiation between them.

## **Interpretation:**

These features help users evaluate, validate, and fine-tune route choices rather than initiate engagement. They work best as supportive layers within route detail views and planning flows, not as primary entry points or defining pillars of the experience.

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## **3. Social, performance, and post-drive features are actively traded away**

All features related to social interaction, group coordination, live communication, performance comparison, trip recording, and post-drive review score neutral to negative in the MaxDiff results.

## **Interpretation:**

In forced trade-offs, users consistently give up social, performance, and post-drive features in order to retain strong route planning and creation capabilities. This does not mean these features have no value, but it indicates they are contextual extensions rather than primary value drivers. They should not define the product structure or lead the navigation.

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## **4. A clear breakpoint separates core value from optional extensions**

There is a pronounced drop between the last positively valued route-enrichment features and everything that follows. This drop is significantly larger than the differences within each group.

## **Interpretation:**

From a user perspective, there is a structural distinction between:

- “What helps me plan and choose a route”
- “Everything else that might be useful later”

This breakpoint provides a strong, data-backed justification for separating core planning experiences from secondary and optional features in the information architecture.

## Overall conclusion

The MaxDiff results confirm that the **product's perceived value is overwhelmingly driven by pre-drive route planning, discovery, and control**. Features related to social interaction, performance, and post-drive reflection should be positioned as optional extensions rather than structural pillars of the experience.

This hierarchy aligns well with insights from open-ended responses and provides a robust foundation for:

- Information architecture decisions
- Feature prioritization
- Experience framing and messaging

### In short:

If the app excels at helping users plan the perfect drive, everything else becomes a contextual extension.

## KANO (N=83)

### ★ How value is experienced emotionally

Only basic route search and preference control are true hygiene factors, while most planning capabilities scale satisfaction through execution quality and experiential features primarily act as optional delighters.

#### Why this matters

- Failure in a few basics breaks trust
- Investment in planning features directly increases satisfaction
- Delight is real, but not universal or required

This Kano analysis combines **category distributions** with **Satisfaction (SAT)** and **Dissatisfaction (|DSAT|) coefficients** to distinguish between baseline expectations, performance drivers, and experiential delighters. Classification is based primarily on **SAT vs. |DSAT| positioning**, with category percentages used to validate the dominant interpretation.

## What this means strategically

- **Must-haves** protect credibility

- **Performance features** justify long-term investment and iteration
- **Strong delighters** define brand character and emotional differentiation
- **Potential delighters** should be tested, staged, or modularized rather than assumed to universally delight

Functional ↓ / Dysfunctional →	Like	Expect	Neutral	Tolerate	Dislike
Like	Q	A	A	A	P
Expect	R	Q	I	I	M
Neutral	R	I	I	I	M
Tolerate	R	I	I	Q	M
Dislike	R	R	R	R	Q

Legend (labels only, no interpretation):

- **A = Attractive**
- **P = Performance**
- **M = Must-have**
- **I = Indifferent**
- **R = Reverse**
- **Q = Questionable**

1. The app helps me discover enjoyable driving routes and browse them by theme or driving mood.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
39.80%	24.10%	0.00%	13.30%	1.20%	21.70%	0.8

2. The app provides information about road surface quality and safety related warnings along a route.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
16.90%	18.10%	8.40%	21.70%	3.60%	31.30%	0.5

### 3. The app provides insights and analysis about my driving performance and vehicle data.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
26.50%	10.80%	6.00%	34.90%	2.40%	19.30%	0.4

### 4. The app shows a clear route overview, including elevation, difficulty, and technical demands.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
24.10%	16.90%	6.00%	28.90%	3.60%	20.50%	0.5

### 5. The app allows me to filter routes by distance, total duration, and waypoints.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
28.90%	22.90%	15.70%	9.60%	4.80%	18.10%	0.6

### 6. The app allows me to modify existing routes or create fully custom routes from scratch.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
27.70%	14.50%	16.90%	22.90%	4.80%	13.30%	0.5

### 7. The app shows photos, ratings, and highlights for routes.

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
25.30%	6.00%	8.40%	33.70%	2.40%	24.10%	0.4

**8. The app allows me to search for routes by name, location, or destination.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
18.10%	18.10%	31.30%	7.20%	3.60%	21.70%	0.4

**9. The app lets me control route preferences, such as avoiding highways or toll roads.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
12.00%	24.10%	30.10%	10.80%	2.40%	20.50%	0.4

**10. The app automatically generates driving routes based on my available time and driving style.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
32.50%	10.80%	10.80%	20.50%	0.00%	25.30%	0.5

**11. The app allows me to compare my driving performance or results with other drivers.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
14.50%	2.40%	3.60%	53.00%	7.20%	19.30%	0.2

**12. The app automatically records my drives and lets me review or relive them visually later.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
28.90%	9.60%	3.60%	36.10%	8.40%	13.30%	0.4

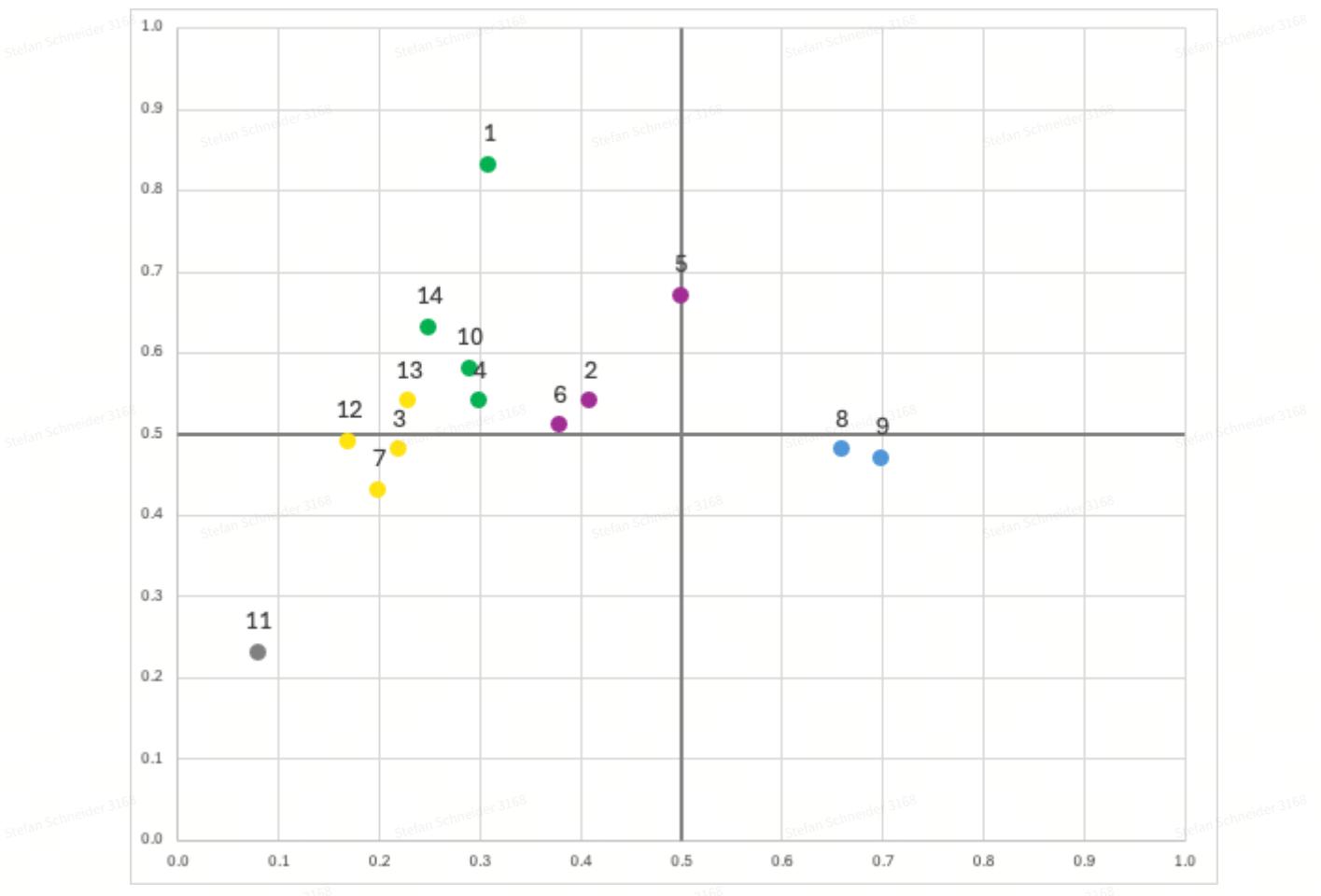
**13. The app helps plan group or convoy drives, including navigating to a shared meeting point.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
31.30%	13.30%	6.00%	32.50%	1.20%	15.70%	0.5

**14. The app allows drivers in a group drive to see each other's location and communicate during the drive.**

A (Attractive)	P (Performance)	M (Must-be)	I (Indifferent)	R (Reverse)	Q (Questionable)	SAT
37.30%	16.90%	4.80%	26.50%	1.20%	13.30%	0.6

## Overall Ratings



Green = Strong Delighter, Yellow = Contextual/Niche Delighter, Violet = Performance, Blue = Must-have, Grey = Indifferent

## ❤️ MUST-HAVES

If missing, users get unhappy. Table stakes.

These two features clearly sit at the **extreme end of dissatisfaction** with limited upside.

### Must-haves

- 8. Search for routes by name, location, or destination
- 9. Control route preferences (avoid highways, toll roads)

### Implication

These define **basic competence and trust**.

Failure here breaks the product. Excellence here is invisible.

## ❤️ PERFORMANCE FEATURES

The more you invest, the more satisfaction you get.

These features show **clear two-sided sensitivity**: absence hurts and presence rewards.

## Performance features

- 2. Road surface quality and safety-related warnings
- 5. Filter routes by distance, duration, and waypoints
- 6. Modify existing routes or create fully custom routes

## Implication

This is where **quality of execution matters**.

Better logic, clarity, and control translate directly into perceived value.

## GREEN HEART STRONG DELIGHTERS

**High satisfaction upside, low penalty if missing.**

These sit high on Sat while remaining relatively safe to omit.

### Strong delighters

- 1. Discover enjoyable routes by theme or driving mood
- 4. Clear route overview incl. elevation, difficulty, and technical demands
- 10. Automatically generate routes based on available time and driving style
- 14. Live location & communication during group drives

## Implication

These features **raise emotional appeal and inspiration**.

They are ideal for storytelling, first impressions, and brand character.

## YELLOW HEART CONTEXTUAL / SEGMENT-DEPENDENT DELIGHTERS

**Nice to have, but not universally compelling.**

Low dissatisfaction and moderate-to-low satisfaction signals.

### Contextual features

- 3. Driving performance and vehicle data insights
- 7. Photos, ratings, and highlights for routes
- 11. Compare driving performance with other drivers
- 12. Automatically record and relive drives
- 13. Plan group or convoy drives

## Implication

These should be:

- opt-in,
- carefully targeted,
- and framed for the right audience.

They should not anchor the core value proposition.

⚠ The new Kano results show that **only route search and route preference control are true hygiene factors**, while most other planning capabilities scale value through execution quality, and experiential or social features remain optional and segment-driven.

## Key Learnings

### 1. Route planning is the primary reason the product exists

Across all studies, users consistently anchor the entire experience around **choosing, shaping, and understanding a route before driving**. Planning quality is not one feature among many, it is the foundation of perceived value. If this fails, no secondary functionality compensates.

### 2. Users mentally organize the product by journey and context, not by features

People explain the app in terms of:

- before, during, and after a drive
- solo versus group driving
- their relationship to a route

This is a cognitive model, not necessarily a navigation preference. It explains why some features feel ambiguous without indicating confusion.

### 3. There is a clear breakpoint between core value and optional extensions

When forced to choose, users consistently protect planning and route understanding features and trade away social, performance, and post-drive functionality. This divide is sharp and consistent, not gradual.

## **4. Group driving is situationally critical, not universally important**

Group and convoy features form a coherent, distinct mental model. They become mission-critical when relevant, but irrelevant when not. Aggregate prioritization hides this effect.

## **5. Route understanding features multiply value but do not initiate engagement**

Elevation, safety, surface quality, themes, and difficulty help users evaluate and refine decisions. They are valuable in context but do not define why users open the app.

## **6. Delight exists, but it is layered on top of competence**

Only a small number of features are true hygiene factors. Most value scales through execution quality or creates delight when present. Experiential and social features create emotional lift, but their absence rarely causes dissatisfaction.

## **7. Settings and configuration are expected utilities, not experiences**

They are necessary, but never a source of engagement or differentiation.

# **Recommendations**

## **1. Make route planning the dominant entry and investment area**

- Position Routes or Plan Drive as the primary top-level entry
- Allocate the majority of design, engineering, and quality effort here
- Treat planning clarity, control, and preview as the core success metrics

This is where the product wins or loses.

## **2. Treat Group Drive as a mode, not a parallel pillar**

- Activate group features explicitly and visibly when relevant
- Minimize their presence when driving solo

- Design for urgency, safety, and coordination when the mode is active

This respects both its importance and its conditional nature.

### 3. Embed route evaluation features inside planning flows

- Surface elevation, safety, surface, and themes within route details
- Avoid promoting them as standalone destinations
- Focus on execution quality over discoverability

They should strengthen decisions, not compete for attention.

### 4. Stage social, performance, and post-drive features deliberately

- Treat them as opt-in layers or secondary surfaces
- Target them to the right segments and moments
- Avoid letting them define the product narrative

They enhance the ecosystem but should not shape first impressions.

### 5. Use delight features to express brand character, not core structure

- Leverage strong delighters for storytelling and emotional resonance
- Accept that not all users will value them equally
- Validate and iterate rather than assume universal appeal

Delight should be intentional, not structural.

### 6. Allow contextual overlap instead of forcing structural purity

- Let features appear in multiple contexts where it makes sense
- Prioritize clear naming and state-based behavior
- Avoid rigid ownership that breaks real-world usage

Clarity comes from language and context, not from perfect categorization.

### 7. Keep settings clearly separated and visually de-emphasized

- Treat them as background utilities

- Avoid surfacing them as part of the core experience
- Optimize for stability and predictability, not engagement

## Bottom line

Build an exceptional route planning experience first.

Everything else should earn its place by supporting, enhancing, or contextualizing that core.

## Design Implications

### 1. Design Routes as the primary object, not navigation as a utility

#### Implication

- The route must feel like a *designed artifact*, not a transient instruction set.
- Users should be able to inspect, understand, and shape a route before committing to it.

#### Design consequences

- Route cards, previews, and detail views deserve the highest visual and interaction quality.
- Prioritize legibility of:
  - overall shape
  - elevation and difficulty
  - risk and surface quality
- Treat routes as entities that can be saved, revisited, shared, and remembered.

### 2. Make planning a calm, intentional, pre-drive experience

#### Implication

- Planning happens in a different cognitive state than driving.
- It should feel exploratory, not urgent.

#### Design consequences

- Separate pre-drive planning surfaces from during-drive UI patterns.
- Use larger touch targets, richer visuals, and layered detail disclosure.
- Allow progressive refinement without forcing early decisions.

### 3. Use progressive disclosure for route understanding features

#### Implication

- Evaluation features add confidence, not motivation.

#### Design consequences

- Show high-level route summaries first.
- Reveal elevation, safety, surface, and difficulty on demand or by scroll depth.
- Avoid cluttering initial views with secondary metrics.

## 4. Design Group Drive as a mode with a visible state change

#### Implication

- Group driving changes responsibility, attention, and risk.
- The UI must acknowledge that shift.

#### Design consequences

- Explicit mode entry and exit.
- Clear visual state change when Group Drive is active.
- Prioritize:
  - awareness
  - alerts
  - communication
- Suppress non-essential solo features in this mode.

## 5. Make group communication fast, simple, and interrupt-safe

#### Implication

- In group contexts, interaction cost must be minimal.

#### Design consequences

- One-tap or voice-first group communication.
- Clear hierarchy between:
  - broadcast messages
  - private messages
- Alerts must be unambiguous and dismissible.

## 6. Separate memory and performance visually and tonally

### Implication

- Trips and Performance serve different emotional needs.

### Design consequences

- Trips should feel reflective, calm, and narrative.
- Performance should feel analytical, precise, and factual.
- Avoid mixing charts and memories in the same primary views.

## 7. Treat performance features as opt-in depth, not default surfaces

### Implication

- Performance matters to some users, sometimes.

### Design consequences

- Hide performance by default.
- Let interested users go deep without burdening everyone else.
- Design for comparability and longitudinal insight, not gamification.

## 8. Use delight features to shape first impressions, not core flows

### Implication

- Delight is emotional, not structural.

### Design consequences

- Use:
  - scenic discovery
  - auto-generated routes
  - rich previewsin onboarding, inspiration, and empty states.
- Avoid letting delight features interrupt task-focused planning flows.

## 9. Allow features to appear in multiple contexts without duplication

## **Implication**

- Real experiences cross boundaries.

## **Design consequences**

- Let the same capability surface in planning, driving, and review where relevant.
- Keep behavior consistent even if entry points differ.
- Prioritize clarity of labels and states over strict ownership.

# **10. Visually de-emphasize settings and system configuration**

## **Implication**

- Settings are expected, not engaging.

## **Design consequences**

- Remove them from primary navigation.
- Use conventional patterns.
- Optimize for predictability, not discovery

# **11. Design for sequencing, not simultaneity**

## **Implication**

- Not all value needs to be present at once.

## **Design consequences**

- Reveal features over time:
  - inspiration → planning → driving → reflection
- Avoid presenting the full capability set upfront.
- Let usage unlock complexity naturally.

# **12. Name things concretely and avoid abstract labels**

## **Implication**

- Clear naming reduces cognitive load more than perfect structure.

## **Design consequences**

- Prefer:

- “Routes”
  - “Group Drive”
  - “Trips”
  - “Performance”
- over abstract or system-oriented labels.

- Use user language consistently across UI and onboarding.