Product Familiy Business Analysis And Definition

by Gerrit Muller

Philips Research

IST - SWA - AmE

Abstract

The creation and evolution of a product family is based on a business analysis. Such a business analysis is used for the definition of the family: which products are member of the family, what distribution of features, which performance range.

This article is to be used in the "Family Engineering Handbook", a collective effort of Philips Research employees to consolidate family engineering based experiences.

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From Business Analysis to Family Definition

- Roadmapping
- Reference Architecture
- Feature Space Exploration
- Value Engineering
- Scope Determination
Reference Architecture

Business Architecture:
- Customer Value drivers
- Customer Business Models
- Market Model (competition, complementors)

Application Architecture:
- Applicational drivers
- Application Domain Model: entities + relations behavior
- Stakeholders

Functional Architecture:
- Commercial Decomposition: Features, Functions, Options
- Price Performance Dimensioning
Business Model

- Who is appreciating what
- Who is paying when for what
- Who is taking decisions
YoYo over views

1e prototype  1e product  1e family definition

Business Architecture
Application Architecture
Functional Architecture
Technical Architecture
Implementation Architecture

Learning  More Learning  Abstraction, Consolidation  Business analysis  Feature exploration  Scoping

knowledge learning curve

time
Scoping

Which part of the Market do we want to serve?
Component Based Technical Architecture

- Customer Business
- Application
- Functional
- Technical
- Implementation

Architecture Guidelines

Product Specific Components

Generic Components
Feature Exploration and Valuation

1. Inventarize Features
2. Map Features on Market Segments
3. Determine Products
4. Map Features on Products
5. Determine Valuation Criteria
6. Valuate Features per Product
Product Feature Map

products

features

Research

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Example of Valuation Criteria

- The value for the customer
- The selling value (how much is the customer willing to pay?)
- The level of differentiation w.r.t. the competition
- The impact on the market share
- The impact on the margin
### Product Feature Map with substituted Numbers

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Final Decision

Which Feature will be realized When for Which product?