



Using Customer Segmentation to Deliver Targeted IT Solutions

At Intel, our IT professionals apply a consumer marketing technique called customer segmentation to better understand user needs and to deliver the right solutions for each user segment. Segmentation is a key mechanism for understanding enterprise users' needs, attitudes, and behaviors. This paper explains the segmentation models we use today and how we apply segmentation at various stages of the IT product life cycle management (PLC) to arrive at customer-centric solutions.

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Executive Summary

Intel IT uses a consumer marketing technique called customer segmentation to provide the right IT solutions to our customers and increase productivity. Customer segmentation helps us understand needs, attitudes, behaviors, and the differences among Intel employees who use IT products and services. Applying segmentation data to the product planning process helps us understand and determine where business opportunities exist. We can focus and deliver truly integrated solutions to users who want and need them.

Customer segmentation helps us understand the differences among Intel employees who use IT products and services so we can better meet their needs and increase overall productivity.

Two customer segmentation models—role based and attitudinal—provide a robust approach to finding information about needs, behaviors, and attitudes that affect the way IT develops and deploys products and services. Our research helps us understand how users actually work, how they approach their IT tools, and how they interact with others in global teams. We found opportunities to improve productivity and helped estimate customer demand for targeted capabilities.

We employ segmentation data to help us with several aspects of our product planning process:

- To understand how to expand and replace existing products
- To align products with customer preference or geographical needs
- To influence product decisions

Furthermore, customer segmentation provides IT with a common framework and vocabulary for understanding our users and communicating about their needs.

We expect that our ongoing research, segmentation, and analysis efforts will uncover additional IT opportunities, highlight emerging trends so that IT can address them sooner rather than later, and continue to guide training and communication strategies.

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Background

What is Segmentation?

Segmentation is a classical marketing approach used to understand the differences among customers. It is the art and science of grouping individuals with similar characteristics and needs. The segmentation process forces a service provider to create user-centric solutions. At Intel IT, we use segmentation to help us understand the differences among our customers, so we can better meet their needs and increase overall productivity. We define our customers or IT users as Intel employees who are the consumers of IT products and services across all of our business units around world.

At Intel, we have learned that the “one-size-fits-all” approach to an IT solution is neither cost-effective from a business standpoint, nor will it increase productivity for all employees. In the past, we deployed a tool or service the same way all over the world, to all employees. Now we apply customer segmentation data that we have gathered over the last three years, which includes information about our users’ needs and work habits, and then provide products based on that information. We have learned that it is more cost-effective and productive to provide the right tools for the right employee groups or segments.

Why Is Segmentation Important?

Segmentation is important because it allows us, as an IT organization, to identify, target, and offer the right solutions based on understanding users' needs, attitudes, and behaviors. Segmentation lets us communicate this understanding consistently to everyone across our IT organization in ways that they can easily understand and act upon. We can focus and deliver truly integrated solutions.

Understanding users' behaviors and needs by role and attitudes offers a more complete picture of the user and provides usable data for our customers.

The consumer marketing methodologies we employ provide attitudinal and behavioral data about technology usage. Understanding users' behaviors and needs by role and attitudes offers a more complete picture of the user and provides usable data for our customers. Our goal is to become a strategic partner and an IT consultant to our business units. We treat the business units within Intel in much the same way Intel's product groups treat their external customers.

Segmentation is important to managers deploying capability tools because it helps determine target market, segment-specific usage models, demand, training, marketing messages, and identifies potential early adopters for pilots.

Segmentation Models

We use two models of segmentation to better understand our IT users: attitudinal segmentation and role-based, or job-based, segmentation. We find that one model is better suited for some activities while the other model is better suited for others. Job segmentation provides a better mechanism for deployment while the attitudinal segmentation is more effective in uncovering unmet needs and demands. In other words, the attitudinal segments are useful for targeting the correct marketing communication messages because we know how these people react to messages. Attitudinal segmentation is also more useful for demand forecasting because we apply users' behavioral and attitudinal information to estimate how many people are likely to adopt new capabilities. Job segmentation, on the other hand, helps us with deployment since we know what is needed in terms of their daily job-specific tasks, and we can identify and reach each employee from various job segments.

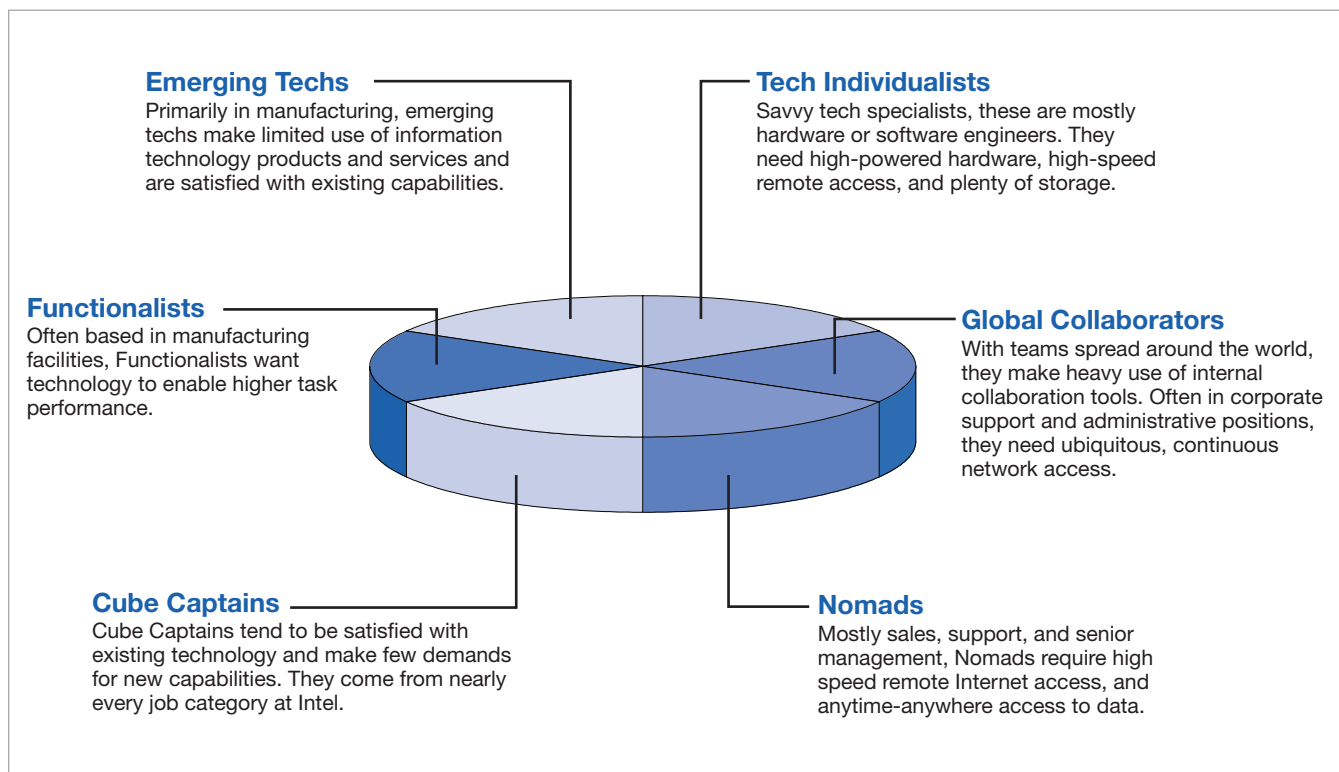
Attitudinal Segmentation Model

Segmentation according to attitude is based upon the user's perception of technology, their technology needs, and behaviors. An advantage of looking at attitudes is that while technology adoption and use varies over the short term, attitudes take much longer to change; therefore, the model tends to be more stable over time.

Figure 1 shows the attitudinal segments we identified at Intel¹.

¹ Attitudinal segment research supplied by Lieberman Research Worldwide.

Figure 1. Attitudinal models



Role Segmentation Model

Role, or job, segmentation is another way we understand our IT customers. This segmentation model focuses on the job role, work-related tasks, and the types of technology or capabilities needed for the jobs. At Intel, we have the following job segments:

Project Management. Users from this segment spend significant time on project plans, stakeholder identification, and task tracking, which impacts project management tools and process.

Administration. Administrative assistants are the central point of contact for disseminating information within their organization. Administrative assistants primarily perform meeting management, calendar management, and travel arrangements tasks.

Senior Management. Users from this segment perform tasks that include, but are not limited to, managing

resources, staff retention, communicating to and managing a geographically dispersed organization. They require resource management, data sharing, and communications tools.

Hardware and Software Engineering. These users focus on design activities and require specialized software tools and high computing power.

Manufacturing. Users in this segment spend significant time away from their office cubes and in the factory environment, requiring job specific tools.

Sales. Users from this segment have a varied work environment, spending most of their time at customer and sales offices. Their work environment has significant implications for security and mobile access to information.

Marketing. Users from this segment perform tasks that include, but are not limited to, market research, strategy formulation, content creation, and collaboration.

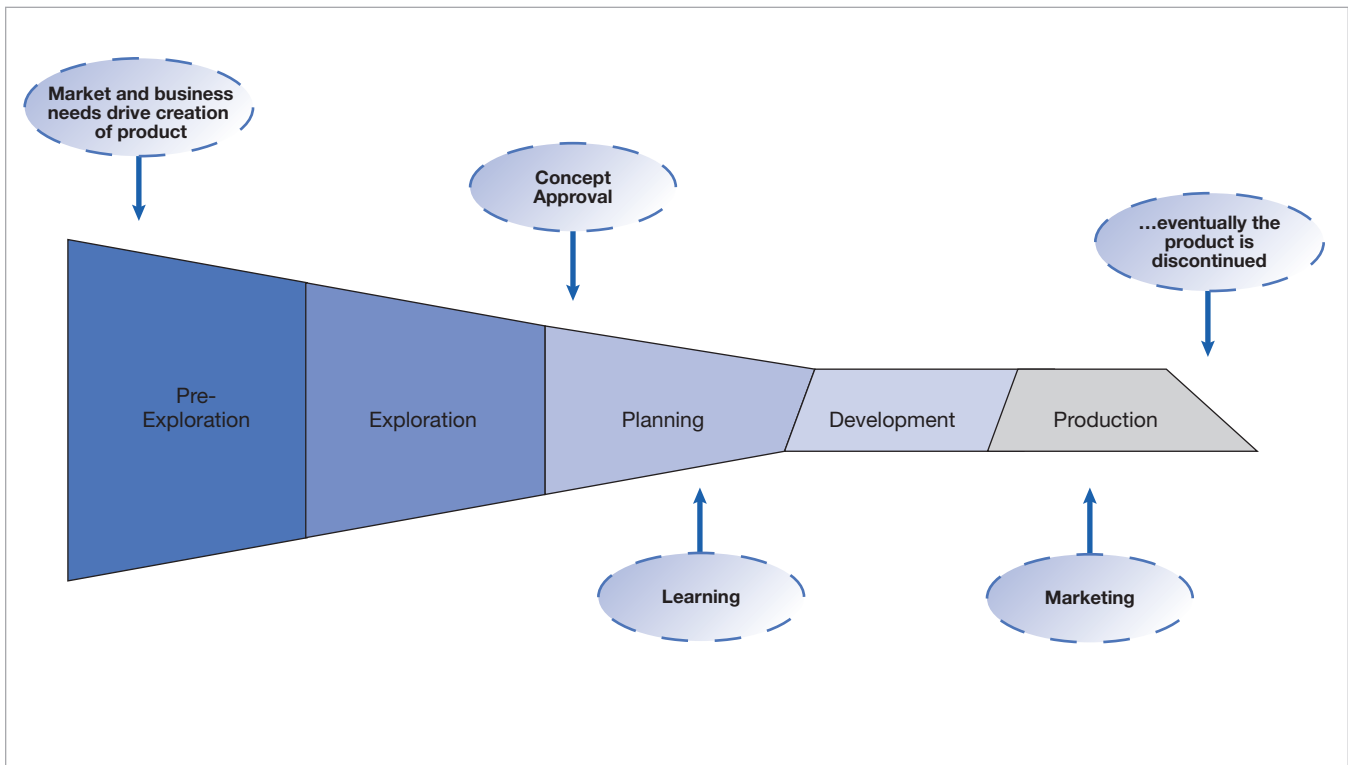
Segmentation in the Product Life Cycle

Intel uses the stages of the Product Life Cycle (PLC) for product development, and Intel IT started employing segmentation as part of its product planning. We utilize user data to understand how to expand and replace existing products and to align them with customer preference or geographical needs. By deploying relevant marketing messages and strategies, we increase product adoption. We also use behavioral data to estimate adoption trajectories for solutions that are in the conceptual stage. We found that using segmentation during the PLC process has the following benefits:

- Provides guidance for proper targeting of users to increase product adoption
- Helps us estimate users' demand for specific capabilities to facilitate funding or deployment decisions
- Identifies relevant marketing messages and training for the targeted segments to help improve productivity
- Helps recruit potential heavy users or early adopters for the pilot phase of a project or for requirements gathering
- Identifies cost-saving opportunities for targeted programs
- Helps test assumptions and validate anecdotal data from the field

Figure 2 shows the product life cycle with circles indicating the points where segmentation can influence product decisions.

Figure 2. Segmentation in the product life cycle



Pre-exploration phase. Efforts are focused on requesting and justifying resources for exploration. Market and business segment requirements influence how we create the product line. For example, if someone from the field thinks we need to provide an online social networking tool for a globally dispersed workforce, we check our segmentation data to see if a significant number of users need this capability, based on their attitudinal responses. In our segmentation data, if users indicate they like to work in a virtual team and feel a need for networking, we know there is a demand for online social networking tools by certain segments or geographies. We can then determine if there is a demand in the market for this capability. This process lets us validate anecdotal information about what users in the field want.

Segmentation allows us to estimate what the ROI might be.

Exploration phase. During the exploration phase of product planning, segmentation helps us identify customer needs, potential market size, and return on investment (ROI) to get approval for new concept or product funding. For example, if we see a need for cellular-based data connectivity in the People's Republic of China (PRC) or Malaysia based on our segmentation research, we can partner with our product

manager who can then take this data to the concept approval phase to support the case. We can run an ROI analysis with the help of our finance department to assess potential productivity gain or cost reduction opportunity from this solution. Segmentation allows us to estimate what the ROI might be.

Planning phase. Work continues on product requirements gathering. We develop a product design specification, develop and test prototypes, and begin feasibility studies, then create a statement of work. This phase ends when a program implementation plan is approved. At this phase, segmentation helps us target training materials and other messages to the correct user segment.

Development phase. Development of the program begins. Code is written, the plan is implemented, production materials are ordered, technical specifications are developed, prototypes are quantified and validated, and a pilot is authorized. Deployment marketing messages are targeted to the correct user segment at this stage.

Production phase. The program is implemented, launched, and evaluated. As the program's life cycle matures, the program is eventually discontinued, based upon user segment feedback and usage. Marketing messages change as the product matures and is discontinued.

Targeting the Right Segment for Highest Adoption

We target capabilities to the right user segment by focusing on the segment characteristics and preferences that could benefit most from the capabilities. For example, when we considered deploying remote access (RA) capabilities, we discovered several key facts.

- Nomads appear to benefit the most from RA capabilities.
- Intel's sales and marketing groups have more Nomads than any other group.
- Sales and marketing employees are heavy travelers and senior managers with strong RA needs.

Therefore, we targeted Nomads or sales and marketing employees for first deployment of RA.

We map the particular tool or product to a capability, then we look at the segmentation data for the right indicators according to the information in Table 1.

Figure 3 shows the adoption lifecycle curve and the relative position of each of the attitudinal segments on the curve. We can use this curve to identify which segments are likely to be the early adopters of certain capabilities—this can also help focus on the heavy users for requirements gathering. We mapped our user segments on this technology adoption lifecycle curve to be able to predict how each segment will respond to new technology deployment, training, and marketing communication.

Table 1. Distinguishing needs and characteristics of user segments

| | Distinguishing technology needs | Most prevalent job categories | Other unique characteristics |
|-----------------------------|--|--|---|
| Tech Individualists | High-speed PCs High-power hardware PC storage space | Hardware Engineering Software Engineering | Knowledgeable, specialized technology users |
| Global Collaborators | Information management and sharing tools | Support | Frequent collaborators, heavy users of information management tools |
| Nomads | High-speed remote network access Access to data while traveling | Senior Management, Sales, Support | Heavy travelers, remote access needs |
| Cube Captains | Information research Online social networking tools | All | Most satisfied with technology |
| Functionalists | Job-specific tools | Manufacturing | Less dependent on office technology |
| Emerging Techs | None | Manufacturing | Low expertise, but satisfied with technology and services |

This adoption curve helps us determine how we deploy new technology or increase adoption among certain segments with customized training and marketing communications campaigns. It also helps recruit pilot users during the product selection and test phase.

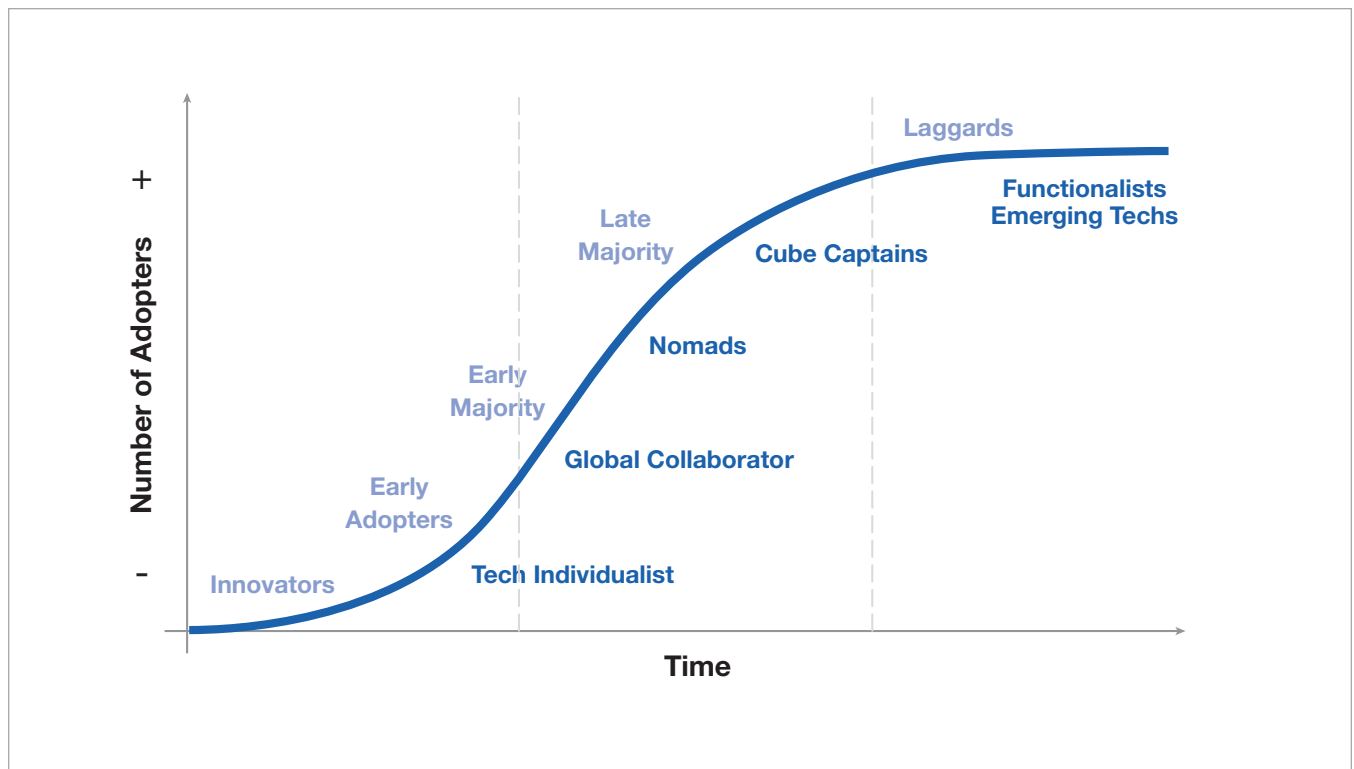
Typically, Tech Individualists and Global Collaborators are the early adopters and technology opinion leaders. However, some job functions (such as administrative assistants) can be our evangelists because of their involvement within their groups. In addition, some jobs may require specific productivity tools even though the users may not be early adopters.

Estimating Demand for Specific Capabilities

We use segmentation data to understand a high-level demand for targeted capabilities. Segmentation helps us estimate return on investment (ROI) for a product or an opportunity.

For example, we discovered that approximately 30 percent of employees appear to have a need for large file (5 MB and more) transfer capability. Segmentation helps us identify other characteristics that impact this group and uncovers job-specific productivity factors such as enabling large file transfer for travelers.

Figure 3. Technology adoption lifecycle



Segmentation also helps us determine where to allocate funding. For example, from our research we identified that telecommuting practice is much higher in the US and Europe; so we are influencing our stakeholders to put significant focus on enabling a mobile work environment and capabilities targeted for these geographies.

Customizing Training and Messages

Segmentation also helps us customize marketing messages, identify early adopters for pilot programs, and customize training based on segment and preference.

For example, training targeted for the Tech Individualist segment needs to include detailed technical specifications, while a Nomad is likely to learn faster with high-level tips and tricks.

We collaborate with our IT marketing group to create messages that work for each segment to improve adoption. Messages change with the maturity of the product.

Our training can be customized and targeted to a specific segment. We know different users want different content. For example, we know that administrative assistants have certain needs—their jobs are to schedule meetings, manage calendars, and travel arrangements, and we want to have specific training for their job functions. When we deploy a new office productivity tool, for example, we can outline those features that are specifically used by administrative assistants.

In addition, a manager's job is to manage resources, hire and train, and prioritize goals, so we want to have targeted training for them.

On a scale of adoption readiness, we can show where the segments lie and how we tailor messages to reach them.

Adoption Readiness

Office Technology Adoption Readiness

Ready Adopters: Tech Individualists (pilot and early adopter), Global Collaborators, Nomads

- Respond to early access to technology that meets their needs
- Reachable through targeted communication (for example, e-mail broadcasts), and broad media (for example, an intranet web site).

Average Users: Cube Captains

- Need to know how, why, usage models, and benefits in order to adopt
- Reachable through broad media

Limited Office Users: Functionalists

- Acknowledge low reliance on office technology and show clear connection to what they do in their jobs
- Reachable through targeted media

Next Steps

Customer segmentation provides IT with a common framework and vocabulary for understanding our users and communicating about their needs.

Two customer segmentation models—role based and attitudinal—provide a more robust approach for finding information about behaviors and attitudes that affect the way IT develops products and services.

We expect that our ongoing research, segmentation, and analysis efforts will continue to have the following effects:

- Influence our strategic planning process to incorporate customer data
- Find additional IT opportunities
- Highlight emerging trends so that IT can start addressing them sooner rather than later
- Continue to influence solutions, training, and communication strategies that work well with the enterprise users

Conclusion

Customer segmentation helps us understand processes, attitudes, and behaviors of our users, and lets us align resources, plan, and deliver solutions in a more efficient manner. Segmentation research also helps us understand how users actually work, how they approach their IT tools, and how they interact with others in global teams.

Segmentation also identified previously unknown differences among employees, revealed opportunities for productivity improvements, and helped highlight emerging needs.

Finally, customer segmentation provides our organization with a common vision and vocabulary about users, and how we can best provide new services and products to support their work.

Author

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Acronyms and Definitions

| | |
|------------|----------------------------|
| PLC | Product Life Cycle |
| PRC | People's Republic of China |
| RA | Remote Access |
| ROI | Return on Investment |

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