AI in Product Management

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Lecture- 16
AI Tools for Customer Segmentation

Welcome to this NPTEL online certification course on artificial intelligence and product management. Now, we are talking about module 16, which is AI tools for customer segmentation. So, this is what we are talking about now. To give an overview of this module, we will start with understanding the rise of AI in customer segmentation. Then we will understand AI-powered segmentation tools such as Peak, Klynk, Heap, and Optimove.

To understand real-world applications of AI-driven customer segmentation and to discuss how AI enhances customer profiling. We will start with an overview of customer segmentation. Each customer is unique to some degree. As a consequence, mass marketing—one marketing program for all customers—is typically inefficient. Since it is time-consuming and not very profitable to develop a separate strategy for each customer, grouping customers into segments is often useful.

Some categories have so few customers that each can be treated as a separate segment and analyzed individually. Examples are passenger aircraft, military products such as battle tanks, and nuclear generators. In addition, there are trends toward mass customization or one-to-one marketing. Which focuses on marketing products and services to individuals rather than to segments. Segmentation is a compromise between treating each customer as unique and assuming all customers are equal, as it provides insights from different kinds of customer behavior and makes marketing programs more efficient.

Traditionally, the customer segmentation process has relied on three main types of data. First is demographics. This category includes basic factual information about customers, such as their age, gender, occupation, income, and education. Then comes psychographics. This type of data delves into customers' psychological attributes, including their attitudes, interests, values, and lifestyles.

Then comes behavioral data. This focuses on how customers interact with products and services, including their purchasing habits, brand loyalty, and usage patterns. Now, what makes a good basis for segmentation? While there is no single way to say what is best, anyone suggesting there is probably doesn't understand the problem or is selling a particular method.

The following six criteria provide a useful standard for evaluation. The first is that the segment should be sizable. Segments must be of sufficient size in terms of potential sales. While some customers may be large enough to consider on their own, as a rule, billion-dollar companies don't care much about it. The second is that they should be identifiable.

Segments should be identifiable so that they can be referred to by more pleasing titles than segment A and segment B. For example, 35 to 50 segments, the sport-minded companies in New York. More importantly, the identity of the segments provides an aid to strategic and tactical decisions. The third criterion is that they should be reachable. It may be sufficient for strategic purposes to identify a segment.

For the purpose of planning the marketing mix, for example, advertising, however, it is useful to be able to target efforts on a segment. A sport-minded segment tends to be reachable through specific media, for example, Sports Illustrated or ESPN, whereas people who prefer the color blue, though identified, may be harder to reach efficiently except by labels on blue towels or by a copy that employs the color blue. The fourth is that they respond differently. Ideally, segments should respond differently to at least some of the elements of the offerings. If all segments respond the same, then no specialized program can be used.

For example, some customers may be sensitive to advertising but not price, whereas others are concerned about price but unaffected by advertising, and still others care about a single attribute such as downtime. The sensitivity to changes in market offerings forms a useful basis for both describing the overall market and defining segments. It also makes the 'why they buy' part of the analysis particularly crucial. Coherent. When interpreting a segment, it is implicitly assumed that all members are homogeneous.

This is always violated to some extent. What is important is that the average member of a segment is reasonably close to the rest of the members. Hence, an important conceptual requirement for a segment is that The within-segment variation in behavior is smaller than the between-segment variation. The sixth is stable.

Since future plans are based on past data, segments, and hopefully but not necessarily the members of those segments, should be fairly stable over time. Now, the limitation of traditional market segmentation. When we think of traditional market segmentation, basic demographics come to mind. Location, occupation, gender, and other characteristics define the foundation of our targeting. There is a key assumption that plays here.

All people in that demographic act the same. We know that is not true. All CEOs don't operate the same way, nor does any other subgroup we can think of. No demographic is a monolith, and we should not be building key marketing strategies on the assumption that they are. Traditional market segments were groundbreaking when they first entered the marketing world.

But that was in 1956. Things have changed. AI is changing the way we work, and our approach to segmentation should evolve with time. Now, we will see the rise of AI customer segmentation. AI-driven customer segmentation is the modern-day solution to oversimplified traditional segmentation tactics.

It skips the assumptions and leans into the reality that people and their purchasing behaviors are complicated. Essentially, it allows you to target customers with surgical precision. In the past few years, we have seen AI-powered customer segmentation show up in the platforms people use for digital advertising and marketing campaigns. Google Ads has integrated AI customer segmentation into their audience targeting tools, for example.

AI customer segmentation has been on the rise because, simply put, it produces better results. It abandons traditional methods, assumptions of norms, and it is extremely dynamic, changing the market's audience and more. Therefore, if we are not taking full advantage of AI segmentation in developing marketing strategies, we are missing out on major opportunities for growth. Now, the benefits of AI customer segmentation. AI segmentation uses machine learning, surpassing traditional customer segmentation methods by almost every measure, discovering layers of norms that basic analysis can't compute.

Here are some of the benefits of incorporating AI into customer segmentation practices. The first is precision. AI tools that assist in customer segmentation use data patterns that tell a more nuanced story of who is buying what. It does not slice your target audience into chunky, assumptive demographics. Instead, it paints a precise picture of how individuals fit into different categories.

Traditional segmentation methods have put precision to the wayside in exchange for simplicity, but buyers are not simple. Utilizing AI with predictive models can define your segments, creating a far more accurate depiction of who your buyers are, which can have a massive impact on your bottom line. Settling for assumptions worked in the past, but AI offers unbeatable precision and accuracy. Advanced Data Processing AI revolutionizes data analysis by quickly processing vast amounts of information from multiple sources, including social media, purchase history, and customer interactions. Machine learning algorithms with AI systems can identify complex patterns and relationships that humans might miss, leading to more nuanced and accurate customer segmentation. This advanced processing capability allows businesses to gain deeper insights into their customer base.

Enabling more effective marketing strategies and improving their ability to deliver customer satisfaction. Real-time Segmentation AI-powered tools continuously analyze incoming data, allowing businesses to adapt their segmentation strategies on the fly. This real-time capability enables companies to respond quickly to market changes and emerging trends, ensuring that their customer segments always reflect the most current information available. Personalization at scale AI facilitates hyper-personalization by creating micro-segments.

Based on very specific criteria. Manual segmentation methods previously made this granularity impossible. AI can analyze countless data points to create highly specific customer segments, each with its own unique characteristics and preferences. This allows businesses to tailor their marketing messages and offerings with unprecedented precision. Significantly improving the effectiveness of their marketing campaigns.

Efficient for ROI. AI models have higher upfront costs than traditional segmentation models. However, the benefits are astronomical, producing an improved ROI despite a large investment. With more specific and dynamic targeting, ads and personalized content can reach only high-intent users, leading to higher customer LTV. AI customer segmentation tools' unmatched accuracy pushes click-through rates, conversion rates, and retention rates through the roof.

Automatic Decision Making: AI systems can automatically adjust marketing strategies based on segmentation insights. As the AI analyzes customer data and identifies new patterns or changes in existing patterns, it can automatically update marketing campaigns, adjust product recommendations, or modify pricing strategies. Enhanced Customer Profiling: By integrating data from various touchpoints, AI can create comprehensive

customer profiles that provide a 360-degree view of each customer. These profiles go beyond basic demographic information to include behavioral data, preferences, purchase history, and even sentiment analysis.

This holistic approach to customer profiling provides deeper insights into customer motivation and behavior, enabling businesses to create more accurate and effective customer segments. Dynamic Segmentation: Unlike static traditional methods, AI allows for dynamic segmentation that adapts to customer behavior changes. AI systems continuously update segments based on the latest data, ensuring the segmentation remains relevant and accurate over time. This dynamic approach allows businesses to stay in tune with their customers' changing needs and preferences, maintaining the effectiveness of their marketing efforts even as market conditions shift. Predictive Analytics: Finally, artificial intelligence can do something that no traditional models can—predict future behavior.

It utilizes historical customer patterns identified in the past and makes incredibly accurate predictions for the future. The level of analysis that an AI program can handle is far beyond any basic analytic program, and it can play a huge role in improving marketing campaign efficiencies. AI's predictive capabilities can clarify the guesswork, so you can count on your customer segmentation strategy to be accurate for the present and future. Now, how to segment customers using AI?

Implementing AI in customer segmentation involves the following steps. The first step is to understand your business needs. When looking to implement AI into your operations, consider your business needs to understand how AI will fit in. This determines the type of AI tools and data you will need for a successful AI implementation.

Identifying challenges in customer behavior, customer experience, and marketing efforts narrows down the areas where AI will be most beneficial. Collect relevant data. The accuracy of AI models depends on the quality of data used for training. As a result, you need to be equipped with the right data points before using AI. When collecting data, consider different sources to get the most relevant and up-to-date information.

Start by extracting data from traditional customer relationship management systems and databases. Next, consider digital touchpoints on e-commerce and social media platforms to gain more understanding of your customers' online interactions. The third step is to choose the right machine learning models. Once you have a relevant data set, the next step is to find the right ML model. Examples of machine learning algorithms include

linear regression, classification, clustering, transfer learning, and dimensionality reduction.

AI models are tailored for different roles in the customer segmentation process. Traditional algorithms are more suited for specific tasks, while deep learning models are more capable of addressing complex problems. Complex problems. Step 4 is to train and test the model. AI models are trained on large data sets to perform different roles like personalization and content generation.

They can also achieve these functionalities if they have access to accurate and reliable data. Clean, process, and transform your data to make it suitable for training. While initial results can provide insights into customer preferences and behavior, You will need to continuously refine the model based on testing outcomes to improve its performance. Integrate with existing systems.

Once the training process is complete, you can move into the implementation stage. You likely have existing systems like CRM and marketing platforms, and you will want to ensure your AI technology is compatible with them. The AI model should integrate seamlessly with these systems to streamline your marketing process. A successful integration leads to several benefits, including real-time insights, better decision-making, and improved customer segmentation. Step 6 is to monitor and optimize.

Monitor AI performance regularly to address challenges as they arise. You should update AI models to keep up with changing customer behavior, market trends, and business goals. This ensures you always have access to valuable insights into insights to make market-driven decisions. Now we will look at the AI-powered segmentation tools.

There are some AI-powered tools that help in automating the customer segmentation process. The first is Peak. Peak is a customer segmentation tool that can help you understand your customer base better and deliver personalized experiences. It automates your communication process to attract new customers and engage with those you already have.

Peak has features like segment maps that categorize customers into different groups based on shared attributes and smart segments that alert you to changing customer needs. It is best for analyzing different customer profiles and segments. The pros are it brings information from different data sources into a centralized location. It offers more than 35

AI attributes for segmenting customers and is compatible with existing CRM systems. The cons are you may have a learning curve with its tools and features.

The second tool is Klynk. Klynk creates customized marketing campaigns, engages customers, and generates personalized content. You can also use Klynk to craft emails with the right tone and subject headlines to boost conversion rates. It has a co-pilot bot that assists in automating marketing, sales, and customer experience processes. It is best for running automated marketing campaigns.

The pros are that it can engage and communicate with customers directly from the dashboard, features a bot for crafting email marketing strategies, and supports running multiple campaigns concurrently. The cons are that they can be expensive for small business teams. It is still under development, so generated content may contain errors. The third is Heap. Heap analyzes your digital marketing touchpoints, such as social media and websites, and segments users based on their online interactions. It provides heat maps and charts to allow you to visualize user behavior and take action. It also features an intuitive dashboard that keeps track of your key metrics. It is best for segmenting users based on their online behavior. The pros are that it allows you to collect in-depth information throughout the customer journey.

It supports other CRM systems like Salesforce, monitors changes in customer segments, and triggers alerts. The cons are that segments can be complex to set up and use, especially for beginners. Segments can be inaccurate if data is not clean or complete, and they can be slow to update if you have a lot of data. The fourth is Optimove. Optimove focuses on improving brand loyalty, helping users plan and deploy multiple customer-focused campaigns.

It supports multi-channel communication, ensuring messages reach audiences on different platforms. It also provides a bot that analyzes customer data to identify opportunities for increasing revenue. It is best for delivering personalized marketing content to different market segments. The pros of using this are that it processes and combines customer data, making it more accessible. It has the ability to create customized content and layouts unique to different segments, and it performs historical, behavioral, and predictive modeling to create richer customer profiles.

The cons are that it requires a lot of data to be effective and can be complex to set up for beginners. Now, we will look at real-world applications of AI-driven customer segmentation. When considering integrating AI segmentation into a high-level marketing

strategy, you will want to identify key spots where you have reached conclusions based on basic demographic analysis. Replacing those basic assumptions with AI customer segmentation data is the key to reaping the full benefits of an artificial intelligence tool. Here are a few different areas that can be honed in on based on AI customer segmentation data.

The first is product-customer churn. What makes a customer stop using a product or service is a question that AI customer segmentation can provide. Great insight into. Chances are, the answer is not simple enough for basic demographic analysis to answer. An AI customer segmentation tool can zoom in on exactly the types of users who are ditching your product.

Providing rich insights about which segment needs more care and investment so you can preemptively predict and curb churn and boost customer loyalty. Assessing potential lifetime value. Not all customers are created equal, and the potential lifetime value, that is, the LTV metric, proves it. Identifying accurate LTV allows you to make data-driven decisions on who to invest your marketing budget into. Perhaps a group with low LTV needs more investment, or maybe you

Want to continue to nurture segments with high LTVs. Regardless of your strategy decisions, AI segmentation with your customer data is going to give you a more precise and accurate image of different customer groups' LTVs, identifying VIP customers and their preferences. Finally, AI customer segmentation allows you to unlock information about your VIP customers. An insightful AI customer segmentation process will provide a richer picture of those VIP customers and help you expand that bracket of spenders. You can also learn how to improve your user experience for customer segments that you know are already benefiting from your service.

Then we will talk about AI-driven customer profiling. A customer profile is a detailed description of a company's ideal customer based on demographics, psychographics, and behavioral data. Customer profiling involves gathering data from various sources such as transaction history, website activities, social media interaction, and survey responses to create a comprehensive view of the customer. But remember, with great power comes great responsibility, so it is important to act ethically with customer data. AI-enabled customer profiling is a powerful tool that enables businesses to collect and analyze data about their customers in order to better understand and engage with them.

This process allows companies to create detailed profiles of their target segments, which can be used for marketing, sales, and customer service purposes. With AI-enabled customer profiling, businesses have access to insights such as demographics, behavioral patterns, purchase history, interests, and preferences. By leveraging these insights, they are able to tailor content and experiences specifically for each individual consumer. Furthermore,

The utilization of AI-powered algorithms also provides opportunities for automatic segmentation of customers into categories or groups. Based on shared characteristics of behavior, it allows targeted campaigns customized towards different segments. Types of AI-enabled customer profiling: The first is demographic profiling. It is a type of AI-enabled customer profiling that involves gathering insights about customers based on their demographic characteristics, such as age, gender, occupation, and income level.

This allows businesses to gain valuable insights into their target markets and understand how different demographics interact with products or services. This information can be used to tailor marketing campaigns to better reach the desired audience and optimize sales efforts. Next comes behavior profiling. It uses AI technology to analyze the customer's past interactions with an organization in order to predict future behavioral patterns. It takes into account actions such as page visits, purchases, reviews, feedback, etc., in order to build a detailed profile of customer behavior and preferences. This data can be used for personalized recommendations, tailored specifically towards each individual customer's interests or needs. Psychographic profiling is another form of AI-enabled customer profiling that focuses on understanding the psychology behind a person's buying decisions by analyzing factors like values, attitudes, lifestyle choices, etc. By leveraging this powerful tool, companies are able to develop highly targeted messages

that speak directly to the motivation behind why people make certain purchase decisions, rather than just relying on traditional demographic data alone. Now we will look at applications of AI-enabled customer profiling. So, AI-enabled customer profiling can be used to improve the quality of customer experience by leveraging insights gathered from AI-powered consumer models. This data can be used to identify opportunities for improving product or service offerings, optimizing website design, personalizing content and experiences, as well as providing tailored recommendations that meet a customer's specific needs. Additionally, companies are able to automate certain aspects of their support teams in order to provide more efficient service and reduce response times when

addressing customer inquiries. Optimizing target campaigns is another key benefit of utilizing AI-enabled customer profiling.

By leveraging detailed profiles of customers, businesses are able to create highly targeted messages geared specifically toward different audience types in order to maximize the impact of results achieved from campaigns launched. Furthermore, artificial intelligence algorithms can also be utilized for automatic segmentation. This allows marketers to divide their target markets into manageable chunks based on shared characteristics or behaviors, making it easier to tailor content accordingly. Finally, automated customer support is another application of AI-enabled customer profiling that enables companies to provide more efficient service while reducing response time when addressing inquiries made by customers regarding products or services offered. Artificial intelligence

provides an opportunity for organizations to automate parts of the processes, such as identifying potential issues quickly along with suggesting possible solutions. This allows customers to get quick resolutions with minimal effort required from them, leading to higher levels of satisfaction overall. Now, let us look at building better customer profiles with AI, the case of BMW. In order to execute a recent campaign, BMW Mini worked to connect and organize its data into an actionable format. Its goal was to target adults searching for premium vehicles who had shown interest in the BMW brand.

By partnering with ad agency Universal McCann, BMW was able to leverage its first-party data which includes people who had visited the BMW website or were already in their CRM systems. BMW used this data to enhance existing search strategies, ensuring its ads delivered relevant messaging to interested car shoppers. BMW then utilized an AI solution to optimize the efficiency of its targeted ads. Over time, this solution optimized BMW's ad targeting so the messaging

Would reach the right person based on factors like time of day, previous searches, and BMW website visits. As a result of this strategy, BMW Mini conversions tripled, and their cost per acquisition declined by 75%. Now, we will present a step-by-step guide to persona creation with prompt engineering. As product marketers, user experience teams, and product managers know, Knowing what our customers need and want is crucial.

While nothing can replace actual customer interaction and live user research, creating detailed personas through prompt engineering can make these interactions much more effective. This section will walk you through a step-by-step process to create and engage with personas using AI tools, ultimately enhancing the product marketing strategy. So,

we will start with understanding why customer needs are important. Understanding customer needs is key for developing products and marketing strategies that resonate with them. Validating customer needs ensures that we build products that our customers need, not just want. This approach leads to higher user adoption, reduced development cycles, and stronger brand loyalty. Step one is to define and create user personas. To start with, we should gather detailed information about our company's product.

This could be from the company's website, product brochures, or any comprehensive overview. Here is how to prompt ChatGPT to create a detailed persona. Explain prompt. I work for a technology company in the healthcare industry, and I need your help creating detailed user personas. I am going to upload my company's website and brochure for your reference to learn about our business.

Once we have done that, we can create our first detailed persona for a cost-conscious employee named Alice, who does not understand benefits. Include the following: goals, challenges, needs, pain points, personality, background, hobbies, behavior, patterns, and preferred communication channels. The next step is to create a hyper-realistic headshot of the persona once we Have the persona. The next step is to visualize it. Use an AI tool to generate a hyper-realistic headshot. This can make the persona more relatable and tangible for the team. Example prompt: Great, now create a hyper-realistic headshot of this persona.

Step 3 is to build out questions to ask the persona. With our persona ready, it is time to develop questions that will help dive deeper into their needs and preferences. Here are some examples based on user experience and researchers' best practices. The first is: What are your main concerns when choosing a benefit plan? How do you currently manage your healthcare experience?

What kind of information would help you better understand your benefits? Which communication channels do you prefer for receiving updates about your benefits? Step 4 is to set up a simulated conversation. Now we can use ChatGPT to assume the role of the persona and conduct a simulated conversation. This will allow us to explore their needs and preferences in a controlled environment.

Example prompt: ChatGPT assumes the role of Alice, a cost-conscious employee who struggles with benefit jargon. I will ask you questions about your healthcare benefit preferences. Step 5: Conduct the interview using GPT Force Voice feature to make the interaction more realistic. Use GPT Force Voice feature for the interview. Here is how to

get started: Confirm that ChatGPT has assumed the persona of Alice. Switch to voice interaction mode on your device. Begin the interview, ask the prepared questions, and record the responses for later analysis. Step 6 is to synthesize and compile insights. After the interview, compile the insights gathered from the simulated conversation.

Summarize key findings, highlight major pain points, needs, and preferences. Share these insights with the product management and development teams to inform future product iterations and marketing strategies. For example, based on my conversation with the persona Alice, it is clear that cost-conscious employees need simplified explanations of benefit options. They prefer email and SMS for updates and value tools that help them compare costs easily. By following these steps, we can create detailed personas and engage them effectively, enhancing our understanding of customer needs.

This approach, supported by prompt engineering and AI tools, ensures that our valuable time interacting with actual customers is much more effective. The insights gained from these personas should be shared with the user experience and product management teams. This collaboration can help identify areas for improvement, inform the development of new features, and ensure that the product roadmap aligns with real customer needs. Engaging with these personas allows us to ask specific questions about potential new features and capabilities, providing valuable feedback that can guide product decisions. By using these personas in the planning process, we can ensure that our product continues to evolve in ways that resonate deeply with our target audience.

Driving growth and customer satisfaction. This not only adds value to our organization but also positions us as a collaborative partner dedicated to meeting and exceeding customer expectations. So, to conclude this module, we have understood the rise in the role of AI in customer segmentation. Furthermore, we have discussed various AI-powered segmentation tools like Peek, Clink, Heap, and OptiMove. We have also delved into the real-world application of AI-driven customer segmentation.

And finally, we have discussed how AI enhances customer profiling for marketers. These are some of the sources from which the material for this module was taken. Thank you.