



Mindtree

Welcome to possible

Mindtree Personalization Effectiveness Model

Version 1.0

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Mindtree Personalization Effectiveness Model

1. Executive summary

Customer Experience (CX) has taken center stage in today's digital world. Personalization is a key component of customer experience and is one of most important tools in a marketer's arsenal.

However, there are several challenges that need to be addressed for effective implementation of personalization strategies.

In this paper, we have summarized common challenges that organizations encounter while implementing personalization strategies. In order to address and mitigate the challenges, we have proposed a framework that can be used by organizations to enhance their capabilities to be more effective with their personalization strategies.

1.1 How to read this paper

This is a detailed paper. We welcome you to read it in its entirety, but, depending on your role, there are some sections that you can focus more on.

If you are a personalization practitioner, you will find Sections 5 and 6 very relevant. These sections detail the model and explain how you can use it with your clients.

Senior IT, marketing and business executives should focus on Sections 2, 3, 4 and 6. Section 3, in particular, provides a good overview of the model to help your leverage personalization in your strategic initiatives.

2. Introduction

Organizations are recognizing the importance of customer experience in driving competitive differentiation. In fact, purchase decisions are far more influenced by customer experience than price or any other attribute of the product or service. Ensuring a good customer experience creates significant opportunities as well as challenges. Therefore, envisioning and delivering a captivating experience cannot be a one-time activity, rather it must become an integral part of ongoing marketing operations.

2.1 Personalization, a key enabler of superior CX

Personalization is central to customer experience and a key enabler in an increasingly crowded market place. Marketers constantly aspire to gain a better understanding of their customers to deliver personalized experience across different touch points with the objective of.

- Widening their reach
- Enabling faster conversions
- Boosting customer life-time value (CLTV)
- Improving net promoter score (NPS)

2.2 Challenges in delivering personalization

Funding and managing the objectives listed above require higher efficiencies in execution. Customer expectations are constantly evolving and becoming more demanding. What excites the customer today may not even be relevant tomorrow. Customers expect a connected and contextual experience, and therefore, a misaligned personalization action can result in lost customers. In addition, digital marketing and IT teams are constrained by time and budgetary limitations. They are also under increasing pressure to deliver more, faster and at reduced costs. A plethora of interconnected tools in the MarTech landscape, diverse skill requirements, and technological advancements and changes add to the complexity. This is in addition to organizational dynamics, conflicting priorities, fluctuating business demands and other operational challenges.

Based on our experience in working with numerous clients, we find several themes emerging, related to the challenges.

Here's an indicative list of the key themes.

- Lack of clear understanding of customer needs
- Increasing and ever evolving customer expectations
- Operational silos within organizations
- Organizational culture and readiness
- Product/service centric approach and processes
- Financial and technical readiness to empower context and time sensitive actions
- Disjointed information leading to inconsistent messaging
- Effectiveness of personalization not measured in totality, resulting in fallacious decisions

Given that every organization has certain constraints (resources, budget, priorities), it is not possible to address all of the above challenges at the same time and may not even be necessary to do so. What is required is a framework that will allow you to address different challenges in an incremental manner. The following sections highlight such a model.

3. Introducing the Mindtree Personalization Effectiveness Model (MPEM)

Given that it can be cost and resource prohibitive to address all challenges concurrently, MPEM breaks down the aspects required for success into 11 dimensions of effectiveness across three categories:



1. Functional



2. Organizational



3. People

Personalization Effectiveness Model

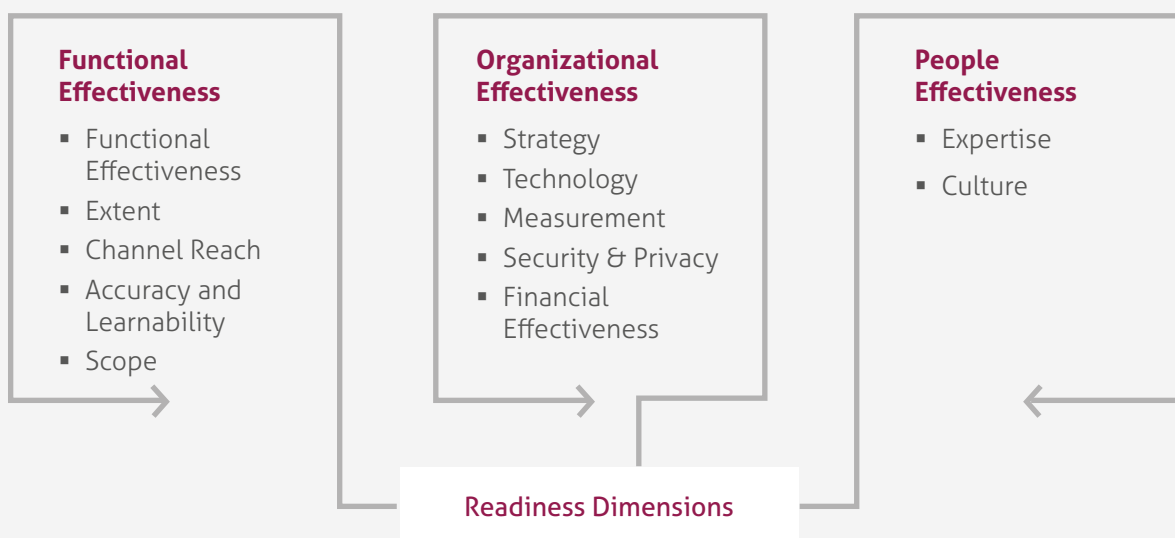


Figure 1: MPEM and Its Dimensions

3.1 MPEM dimensions: A deep dive

The dimensions shown in the Figure 1 are summarized in Table 1.

Table 1: Dimensions of MPEM

Category	Dimension	What's included in the dimension
Functional effectiveness	Extent	Extent and complexity of personalization capabilities. Also included is the degree of automation.
	Channel reach	Channels targeted by personalization initiatives
	Accuracy and learnability	Ability to change personalization strategy based on feedback, i.e., the extent to which the personalization campaign is self-correcting and adaptable
	Scope	Scope of personalization in terms of support for varied use cases or target audience.
Organizational effectiveness	Strategy	Strategy as well as a roadmap for personalization for meeting specific objectives including: <ul style="list-style-type: none"> • Mission • Leadership • Top management commitment
	Technology	Architecture including the capability to satisfy non-functional requirements such as scalability and reliability. Also encompasses cloud and infrastructure readiness, data management, big data etc.
	Measurement	Extent of reporting and analytics capabilities to measure impact of personalization.
	Security and privacy	Extent to which security implications are understood and appropriate procedures put in place. Also includes legal, ethical and moral considerations.
	Financial effectiveness	Financial readiness refers to an organization's ability to understand aspects related to costing, budgeting as well as revenues. These include understanding of upfront costs, revenue generation, billing mechanisms, maintenance costs, upgrade costs, licensing costs and any other such aspects.
People effectiveness	Expertise	IT and business expertise: IT expertise includes knowledge of core IT areas as well as personalization specific expertise. Business expertise refers to a deep understanding of domains that require personalization.
	Culture	Extent to which personalization is part of an organization's culture. Does the organization's culture encourage use of personalization? Includes values, beliefs, behavior and ability to adapt.

4. Mapping business outcomes to MPEM dimensions

When organizations embark on a personalization journey, it's important to understand how various dimensions influence business outcomes. Doing so helps organizations prioritize resources for the right dimensions to achieve desired goals. Each dimension can be applied at different levels of complexity and degree of personalization. Table 2 showcases potential personalization scenarios against common business outcomes and lists the key influential dimensions to consider for each.

Table 2: Mapping of business outcomes with effectiveness dimensions

Business outcome	Potential personalization scenarios in order of increasing complexity	Key influential dimensions
Widen reach	<ul style="list-style-type: none"> ▪ Search engines ▪ Targeted ads ▪ Channel investments 	<ul style="list-style-type: none"> ▪ Channel reach ▪ Extent ▪ Scope ▪ Strategy
Sell more	<ul style="list-style-type: none"> ▪ Upsell, cross-sell based on related items ▪ Personalized bundling ▪ Propensity-based upsell, cross-sell 	<ul style="list-style-type: none"> ▪ Extent ▪ Channel reach ▪ Scope ▪ Strategy and vision
Repeat sell	<ul style="list-style-type: none"> ▪ Targeting based on seasonal/periodic events ▪ Targeting based on life events ▪ Targeting based on product/service characteristics such as consumption pattern, frequency, desired life tie ▪ Targeting at peak experience 	<ul style="list-style-type: none"> ▪ Extent ▪ Scope ▪ Channel reach ▪ Technology
Convert faster	<ul style="list-style-type: none"> ▪ Content personalization ▪ Personalized shortcuts to actions and content ▪ Contextual interaction across online and offline channels 	<ul style="list-style-type: none"> ▪ Scope ▪ Reach ▪ Technology ▪ Strategy
Increase satisfaction	<ul style="list-style-type: none"> ▪ Capturing customer preferences ▪ Personalized interactions based on declared preferences ▪ Inferring undeclared preferences based on interaction history 	<ul style="list-style-type: none"> ▪ Extent ▪ Scope ▪ Accuracy and learnability ▪ Expertise
Create differentiated experiences	<ul style="list-style-type: none"> ▪ Unexpected rewards ▪ Learning from online/offline interactions to deliver delightful experiences 	<ul style="list-style-type: none"> ▪ Strategy ▪ Expertise ▪ Technology ▪ Accuracy

	<ul style="list-style-type: none"> ▪ Analyzing declared profile ▪ Analyzing Third party data ▪ Analyzing data from systems of transactions ▪ Analyzing customer engagement patterns and history 	<ul style="list-style-type: none"> ▪ Scope ▪ Technology ▪ Expertise ▪ Accuracy and Learnability
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5. How MPEM works

There are five effectiveness levels for each of three categories and 11 dimensions discussed earlier. Effectiveness level defines the readiness level of an organization in successfully implementing their personalization initiatives. Each level defines a graded set of capabilities. For each dimension and level, the model also defines characteristics for that level a la other information management-oriented models (Pelz-Sharpe et al., 2009; Durga, 2012). Using these characteristics, an organization can analyze and decide which level best matches their effectiveness. Table 3 lists the various levels for each category.

Dimension	What's included in dimension	Level 1	Level 2	Level 3	Level 4	Level 5
Extent	Extent and complexity of personalization capabilities and degree of automation	Really basic personalization such as replacing generic terms such as "dear user" with specifics such as "Dear Ms Username". No automation for personalization realization. Automated dispatch of mail delivery.	Role-based customization; targeting content based on user's role. Mostly explicit personalization.	Rules-based personalization; some (mostly static) segmentation. Personalization with experience optimization (A/B testing, experience optimization based on feedback loop).	Personas & dynamic segmentation, insights driven /predictive.	Contextual & individual engagement mostly driven by AI and ML techniques that replace rules-based personalization with those based on machine learning algorithms. Mostly implicit personalization.
Channel reach	Channels targeted by personalization initiatives	Personalization limited to emails, mostly via basic techniques such as addressing recipients by their name.	Can personalize content and websites in addition to email.	Personalization covers most digital channels - email, web, social.	Multi-channel - includes mobile as well as physical channels such as store or point of sale.	Level 4 capabilities plus cognitive capabilities. Omni-channel personalization strategies that go beyond multi-channel and provide a truly personalized experience across channels and devices.

Accuracy and learnability	Ability to change personalization strategy based on feedback, i.e., the extent to which the personalization campaign is self-correcting and adaptable.	No mechanism to measure accuracy and make course corrections.	Manual intervention and some course correction possible.	Test results (e.g., A/B or multivariate testing) provide a strong basis to change personalization outcomes	Analytics and reports provide capabilities to identify personalization issues and resolve them based on insights.	Retrospection & self-healing (or corrections) considered in AI algorithms to minimize adverse effects due to echoed affirmations / choices.
Scope	Scope of personalization in terms of support for varied use cases or target audience.	Scope limited to personalization of text messages.	Can personalize content recommendations.	Personalized offers and product recommendations. Also, some level of shopping experience personalization	Product as well as service personalization.	Covers the overall experience and engagement optimization. All messaging contextual in nature.
Strategy	Strategy as well as a roadmap for personalization for meeting specific objectives, including: <ul style="list-style-type: none"> • Mission • Leadership • Top management commitment 	No real strategy for personalization.	Good understanding of the need to have a strategy and vision in place for personalization and related initiatives.	Actively working on a strategy and a long-term vision for using personalization; Management commitment and sponsorship in place.	Roadmap for personalization features and integration with external channels or applications is defined and plans to achieve the same and measure KPI are in place.	Roadmap of custom features and integration with enterprise applications is well defined and all stakeholders are aligned with high level strategy plan Progress on this roadmap and KPI is published at regular intervals and course correction process is defined. Identifying possibilities of future state personalization is an ongoing process.

Technology	Includes capability to satisfy non-functional requirements such as scalability and reliability. Also encompasses cloud and infrastructure readiness, data management, big data, etc.	There is no separate infrastructure for personalization initiatives.	Some additional infrastructure has been procured to support personalization initiatives.	Personalization is part of some of the enterprise software such as WCM or email marketing.	Dedicated personalization engine and investment in advanced personalization products such as CDPs	Ability to measure and extract benefits of cloud models, accurately predict and model performance characteristics
Measurement	Extent of reporting and analytics capabilities to measure impact of personalization.	There is no measurement other than basic user and content metrics.	Understand the importance of measuring and are planning to implement basic reporting.	Each department or group has its own measurement criteria as well as its own reporting and analytics. There is some capability to do data modeling based on business objectives and measure engagement metrics for users and content.	Planning to implement organization wide measurement capabilities. Ability to measure domain specific metrics, such as customer lifetime value (LTV) and monitor them for specific objectives.	Organization wide analytics and measurement defined along with key performance indicators (KPIs)
Security and privacy	Extent to which security implications are understood and appropriate procedures are in place. Also includes legal, ethical and moral aspects.	Capability to create roles, assigning privilege, support for secure protocol, IP whitelisting and enforcing demographic restrictions.	Assigning multiple roles to single user, capability to encrypt assets in repository and integration with single sign-on systems.	Growing understanding of privacy and legal issues related to personalization. Some efforts in place to define privacy norms.	Compliance with legal and ethical aspects such as privacy norms and GDPR.	Security is an organization-level shared service with processes to address new threats in a timely manner.

Financial effectiveness	Organization's ability to understand aspects related to costing, budgeting as well as revenues. These include upfront costs, revenue generation, billing mechanisms, maintenance costs, upgrade costs, licensing costs and any other similar factors.	Not much appreciation for overall costs or financial implications of implementing a personalization system.	Budgeting and a good understanding of total costs and estimates is in place. Corporate level initiative	Good understanding of all types of costs as well as processes for managing costs, ability to make between build vs buy decisions and so on.	Good understanding of revenue side - including charge-back mechanisms backed by appropriate charge-back models.	Non-traditional costing and revenue models such as cloud/ SaaS-based pricing models are regularly used for optimization
Expertise	IT and business expertise. IT expertise includes knowledge of core IT areas as well as personalization specific expertise. Business expertise refers to knowledge of domains that need personalization.	Low domain and tool knowledge; no alignment between IT and business.	Some exposure to personalization tools; mostly driven by 'star' employees in business and IT.	Both IT and business understand the importance of personalization and collaborate for success.	Managing personalization systems is a core IT skill for the organization.	Business and IT expertise in domain and technology. Both IT and business are well equipped in handling personalization needs for future business requirements
Culture	Extent to which personalization is part of an organization's culture. Does the organization's culture encourage use of personalization? Includes values, beliefs, behavior and ability to adapt.	No organizational culture when it comes to personalization. Most implementations are based on individual efforts.	Top management wants personalization as a way to improve customer centricity. But employees are still not familiar with benefits of customer centricity.	Leaders and top management actively encourage personalization as a way to improve customer satisfaction.	Customer centricity is engrained in the organization's culture and every employee understands the importance of personalization to ensure customer success.	Personalization is such an integral part of organization's culture that it no longer exists as a separate initiative. It is an important part of all initiatives.

5.1 Level 1 - Basic

At Level 1, organizations implement very basic personalization such as personalized greetings in e-mail delivery. Channels are limited - mostly to emails. There is neither a personalization strategy in place, nor a well-defined set of metrics to measure effectiveness. Hence, no specific investment is made in necessary infrastructure, technology and skills to realize personalization. Security and privacy policies are driven by organizational information security guidelines; Personalized engagement or information delivery is not a key priority. There is little organizational alignment or leadership commitment, and personalization initiatives largely remain individual-driven.

5.2 Level 2 - Foundational

At this level of personalization, organizations implement explicit role-based customization to target content to users, delivered mostly via websites and emails. Personalization logic is pre-defined and manually coded or configured. There are no well-defined metrics at this stage, outcome is adjusted based on feedback and basic usage reporting. Recommendations are manual and largely depend on individual understanding and effectiveness. While there is a good appreciation of the need for personalization vision and strategy, they are not developed and operationalized. Leadership understands the importance of personalization as a tool to drive customer centricity, however organization-wide awareness continues to lag. Initiatives are driven in a few departments such as marketing and customer services with disjointed efforts led by a handful of star employees.

5.3 Level 3 - Intermediate

Organizations at the Intermediate level are those that have made efforts to understand customers, with defined segments based on demographics and historical data. Rule-based personalization with pre-defined segments and experience optimization based on feedback loop or A/B testing are common. Personalization covers most digital channels such as email, web, mobile and social. Sufficient metrics to measure A/B test outcomes are defined and used to optimize experience. At this level, personalization is applied to offers and product recommendations in addition to content promotions. Some level of transactional experience personalization, such as personalized catalogs, is also common.

With management commitment and sponsorship, the organization is driving towards clear strategy and a long-term vision. This results in investments in infrastructure, enterprise software stacks and skills. Expenditures are evaluated at a granular level with respect to ROI. Essentially, organizations have a better understanding of build vs buy, wisely managing and optimizing capex and opex. In addition to analytics and usage reports, each department develops the capability to measure impact of personalization and maps it to business objectives. Clarity in personalization strategy encourages them to revisit privacy norms in the light of personalization. Organizations at this level understand the value of being customer-centric and start planning around the behavioral, system and process changes required for effective personalization.

5.4 . Level 4 - Mature

Organizations at Level 4 have achieved a firm grip on the different aspects of personalization. Complexity of scenarios as well as governance of personalization is at a mature stage. Organizations have a well-defined

approach to define personas and have invested in systems to drive dynamic segmentations, realizing insights-driven personalization. Systems are integrated to build complete 360-degree profiles of customers, thus, improving reach across online and offline channels. Advanced analytics and reporting provide a mechanism to identify personalization issues and resolve them based on insights.

Customer-centricity is ingrained in the organizational culture. It is intrinsic in employees' approach to customer engagements and interactions. Organizations invest in infrastructure, tools and skills to bring scale to drive personalization initiatives. Dedicated personalization engine, investment in advanced personalization of products, analytics and reporting engines are commonly seen in such organizations. Compliance with legal and ethical aspects are explored and included in organizational policies.

5.5 . Level 5 - Leader

Artificial Intelligence (AI) driven contextual and individualized engagements characterize Level 5 of personalization. Dynamic personas, pattern matching algorithms for segmentation, retrospection and self-healing algorithms, and predictive analytics are some of the key aspects visible at this level. Omni-channel support is not limited to supporting multiple traditional channels. It includes several newer channels such as IoT or conversational channels like voice assistants, offering a seamless and unified experience across channels. It also includes a feedback loop across channels and devices that further optimizes personalization outcomes. The scope of personalization covers overall engagement and all interactions are context-aware. Personalization strategy is well defined and aligned with stakeholders at various levels. It includes feature roadmap, implementation roadmap, metrics for measurement and optimization strategies. Progress is tracked closely; course correction is implemented at checkpoints as defined in personalization governance. Innovation and future state optimizations are an integral part of the process.

Measurement criteria are standardized and adopted organization-wide, and systems are established to capture and publish KPI reporting. Security policies are well-defined to address nuances of personalization scenarios. Processes, audits and shared services are established to proactively address new threats. Financial effectiveness is measured objectively. Models are devised to simulate and predict outcomes for potential investments. Systems and processes to implement charge back model, budget allocations and performance optimization are clearly established.

Adequate investments in infrastructure and systems enable accurate and automated personalization at scale. Business and IT are equipped with the right skills to handle rising customer expectations and newer engagement channels. Innovation is a focus area and draws appropriate investments by the organization. Customer delight is core to the organizational DNA. It is no longer a stand-alone initiative but a foundation for all other initiatives in the organization.

6. How to use the model

Some key points to note while implementing the model are listed below:

1. In addition to technology, an organization needs to address several other factors for a successful personalization initiative. Technology is important but usually not enough to ensure success.
2. However, it is almost always impossible to address all factors at the same time. This could be because of varying priorities, budgetary and resource limitations, or just the fact that all factors are never equally important.
3. Often, it is not desirable to take a big-bang approach. A gradual, incremental approach is more beneficial. The objective should not be to achieve a Level-5 for every single dimension. That is usually cost and resource prohibitive; and may not be the best way to improve personalization.
4. MPEM approaches personalization at multiple levels; with each level bringing in progressively higher levels of benefits.

There are several scenarios for which this model can be used. Here are some examples:

1. An organization can use it to assess its current state of readiness across different dimensions. Such an analysis might uncover insights into a situation where, even though the organization is at Level 5 in terms of technology, its processes may still be at Level 1. That would explain why the organization is unable to reap the benefits of spending millions on cutting edge technologies. This analysis will help the organization identify areas that it needs to work on for improved results.
2. Once it understands its current state, an organization can decide the target level for each dimension. In the above example, the organization might decide it needs to work on its processes and move to Level 3 for process management.
3. This model can also be used on an ongoing basis to track progress; say every six months.

7. Conclusion

Customer experience improvement is integral to every organization's growth and success, irrespective of its domain and business model. Understanding the importance of a holistic customer profile and how personalization can be used to improve customer experience can be a powerful differentiator. Forward-looking organizations that have managed to reap the benefits of personalization at scale are seeing several financial and non-financial benefits while securing competitive advantage.

ABOUT MINDTREE

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