sciendo

Proceedings of the 4th International Conference on Economics and Social Sciences (2021), ISSN 2704-6524, pp. 412-422

The 4th International Conference on Economics and Social Sciences
Resilience and economic intelligence through digitalization and big data analytics
June 10-11, 2021
Bucharest University of Economic Studies, Romania

The Art of Product Management – a Practical Guide for Product Value Maximization

Maria Daniela LICA[1]

DOI: 10.2478/9788366675704-041

Abstract

In a realm overflowing with innovation hype, creating winning products that truly address our customers' needs has become a very challenging assignment. While everyone aspires to build the most desirable products for their customers, reduce risks, and generate great value for their businesses, they are unlikely to succeed without the right methods.

This article is a case study based on qualitative and quantitative research (252 respondents to a survey) that aims to identify which worldwide techniques help product managers balance the four big risks: value, usability, feasibility, and business viability. The sweet spot is about true product teams that move beyond the classical Agile delivery methodologies, adopting a continuous-discovery mindset, and taking full ownership of their outcome while making evidence-based decisions at each step of their product development process. Moreover, the paper consists of a list of recommendations on how to apply some essential Product Management principles such as a focus on the outcome, not on the output, usage of the right product metrics, and empowered teams.

Keywords: Product Management, Business Agility, Experimentation, Data-driven Products.

JEL Classification: C90, D02, D80.

1. Introduction

Every company's success depends on customers and their willingness to buy the products. Product managers are responsible for what the product teams build; thus, they are highly accountable for the success of the business.

In an era of continuous development and innovation, Product Management has become a crucial discipline, especially in companies for which technology represents an essential growth driver.

Effective Product Management requires experimentation and a data-driven mindset, strategic thinking, and great product leaders who can let go of the future they have imagined if this is not desirable anymore. The experimentation year,

[1] Bucharest University of Economic Studies, Bucharest, Romania, maria.daniela.lica@gmail.com.

2020, has taught us that we need to embrace the uncomfortable process of letting questions lead our product creation process. We should run experiments that enable us to understand our customers' needs, measure the impact of our actions, and identify what works best, to move forward and scale in a very agile way.

However, when we start building a product, our brains crave certainty - most product managers tend to define all the requirements upfront, together with the stakeholders or users. After that, the development team gets a list of specifications and starts building them in iterations. This iterative development process is what most companies call *Agility*. The truth is, this describes only product teams working Agile on the operational level in a Waterfall organization. The best product organizations move from just practicing agile methodologies on the operational level to practicing true Product Management - adopt a continuous discovery process and focus on the value they want to deliver, not on the functionalities they need to build.

This article is a case study that focuses on identifying the maturity level of teams building technology-powered products, aiming to identify the most common challenges they face in their journey and propose recommendations on how to tackle them.

2. Problem Statement

Amid the increasing relevance of data in decision-making, extended customer and design centricity, and emerging software-development methodologies, the Product Management discipline has evolved to impact every aspect of building a successful product. As Marty Cagan (2017, p. 62), the founder of Silicon Valley Product Group, mentions, "the product manager role needs to be among the strongest talent in the company."

Notwithstanding the importance of product managers, the results of some recent surveys reveal that organizations are either underinvesting in this essential role or struggling to create an environment that fully empowers them:

- The 2021 State of Product Management survey done by Product Pan, based on more than 2200 responses, shows that the two most significant Product Management challenges are: getting consensus on product direction and setting roadmap priorities without customer feedback;
- McKinsey Product Management Index shows that only 35% of product managers have a clear development plan and know what to do to advance in their company;
- The Strategic Thinking Manifesto (2021) research, including 500 leaders at 25 companies, reveals that 96% of these do not have enough time to define a clear and proper strategy.

In this context, it is not a coincidence that some Product Management thought leaders admit that: "Product Management is hard" (Marty Cagan, 2020), "building great products is hard" (Dan Oslen, 2016), and facing these challenges, "organizations must build out a Product Management practice that leads to the creation of value" (Melissa Peri, 2018).

While Product Management roles and responsibilities are thoroughly described in published literature, there is still much room for exploring how to successfully apply them while dealing with today's most common impediments.

3. Research Questions/Aims of the Research

This research aims to describe how technology industry companies apply the Product Management discipline to create products that customers love and drive their business.

It should act as a practical guide for all the product leaders and teams interested in maximizing their products' value. The article describes the research teams' Product Management maturity level. Maturity is determined based on their ability to tackle the four significant Product Management risks: Usability, Value, Feasibility, and Business Viability, to reduce the likelihood of either spending time and effort building products that nobody uses or not driving the business's strategy forward. The research also aims to identify the product teams' most significant impediments, how open they are to experimentation and data-driven mindset and behaviour, and how they define the product managers' roles and responsibilities in their context.

In addition, the article details personal recommendations that product teams should consider when addressing the most common impediments – not enough time to innovate, product engineers not involved in the discovery process, and too much focus on the output (deliver functionalities), rather than the outcome (deliver value).

4. Research Methods

The basis of the article is exploratory and practical research – a survey conducted with product people, from the technology industry, which reveals the Product Management maturity level of the respondents on areas like: the ability to tackle the four product risks, experimentation, a data-driven mindset, empowerment, and a sense of ownership of the product team. The survey also identifies the most common impediments that product teams face and how they relate to their roles and responsibilities in their specific context.

Information about the survey:

- Research methods: Online survey;
- Period: January 2021 - March 2021;
- Number of respondents: 252;
- Respondents roles: Product Engineer/Developer (44%), Agile Coach/Scrum Master (25%), Product Manager/Product Owner (22%), and also UX/UI designer, Manager, CEO;

Information about respondents' company:

- Company stage: 69.7% enterprise, 24.2% growth-stage, and 6.1% start-up;
- Company location: 75.8% Europe, 9.1% North America, 9% Africa, Latin America, or Middle East, and 6.1% globally.

Information about respondents' products:

- Product category: 49% Business Services, 19% E-commerce sites/Marketplaces, 16% Mobile Applications, 5% Customer Devices, 2% Social Media, and 9% Other;
- Product stage: 46% stable and seeking continuous innovation opportunities, 24% reached product/market fit and intend to scale and grow, 15% working to achieve the product/market fit, 12% in sunset stage, and 3% working to find problem/solution fit;

5. Findings

This chapter describes the main principles and behaviours that define a mature product team and explains why they are essential to maximizing the product value. Next, the article presents the Product Management Maturity survey results relative to the ideal product team definition. The last part of the chapter presents recommendations for teams that want to improve the product maturity level.

5.1. Mature Product Teams' Definition

A product team's maturity is highly correlated with the team's ability to tackle the four essential Product Management risks, an experimental data-driven mindset and behaviour, a sense of ownership and purpose, and a desire to solve customers' problems. Also, the product manager plays an essential leadership role in setting the right direction and way of working.

The product team should tackle the **product risks** before starting the implementation process. As Cagan explains (2018, p. 35), these risks are:

- Value risk (assessing if the customers will choose to buy what the product team builds)
- Feasibility risk (assessing if the product engineers have all the necessary skills to build the product, e.g., technology, tools, time, skills)
- Usability risk (assessing if the users understand how to use the product)
- Business Viability risk (assessing if the product works according to other aspects of the business, e.g., legal, marketing, finance).
- Product teams must navigate the uncertainty around the product creation process. Working with an **experimental team** through the discovery and delivery stages, the product manager supports the business to achieve value through solving user problems. When thinking about uncertainty, Melisa Perri (2019) considers it helpful to look at the following framework:
- Check Facts to make sure they are accurate (Known-Knowns)
- Identify Questions that need to be answered through experimentation and data (Known-Unknowns)
- Rely on Intuition to guide familiar-territory decisions (Unknown-Knowns)
- Use data and Innovation to identify patterns and generate insights (Unknown-Unknowns)

Mature product organizations and leaders understand the power of experimentation and try to build psychological safety for the product teams to experiment and get excited about that continuously. As Peter Skillman (1999), the GM Core UX at Microsoft, said, "enlightened trial and error succeeds over the planning of the lone genius."

The experimentation culture and behaviour are also very well structured by the Lean Startup process described by Eric Ries (2011). One of the most powerful principles of Eric's philosophy is the Build – Measure – Learn loop. This principle relies on building a simple version of the product, a minimum viable product (MVP), measuring its impact by analysing the users' reactions, and learning how to continue with the idea based on their feedback. Applying Lean Startup, companies can reduce waste from the product creation process by taking time to explore uncertainty, experiment, fail fast, learn from mistakes, and make informed decisions based on factual data, not assumptions. A successful Lean Startup adoption requires a **data-driven mindset and behaviour**. Croll and Yoskovitz (2013, p.3) describe the importance of data in the product creation process: "Your delusions, no matter how convincing, will wither under the harsh light of data. Analytics is the necessary counterweight to lying, the yin to the yang of hyperbole." Using data, mature product teams learn how to iterate in the right direction.

Another essential characteristic of mature product teams is their **autonomy and empowerment** to make decisions and guide their products' direction. As Cagan (2020) says, "in an empowered product organization, product leadership responsibilities include coaching and staffing, product vision, team topology, product strategy, team objectives, and working with the extended executive team to transition the organization to truly leveraging these product teams to power their business, rather than treating them as a cost centre."

The product manager has a key role in successfully applying Product Management principles and techniques. According to McKinsey Product Management Index, the top five core competencies of a mature product manager are:

- Business acumen (e.g., define the product vision and strategy, understand and use data, prioritize the outcome-driven objectives)
- Market orientation (e.g., ability to understand market trends and define competitive strategies)
- Customer experience grounding (e.g., ability to design customer-centric journeys)
- Technical skills (e.g., understand the technology and architectural trends)
- Soft skills (e.g., ability to influence, communicate and motivate)

5.2. Product Management Maturity Score

Source of all the following figures (Figure 1-7): Online survey results.

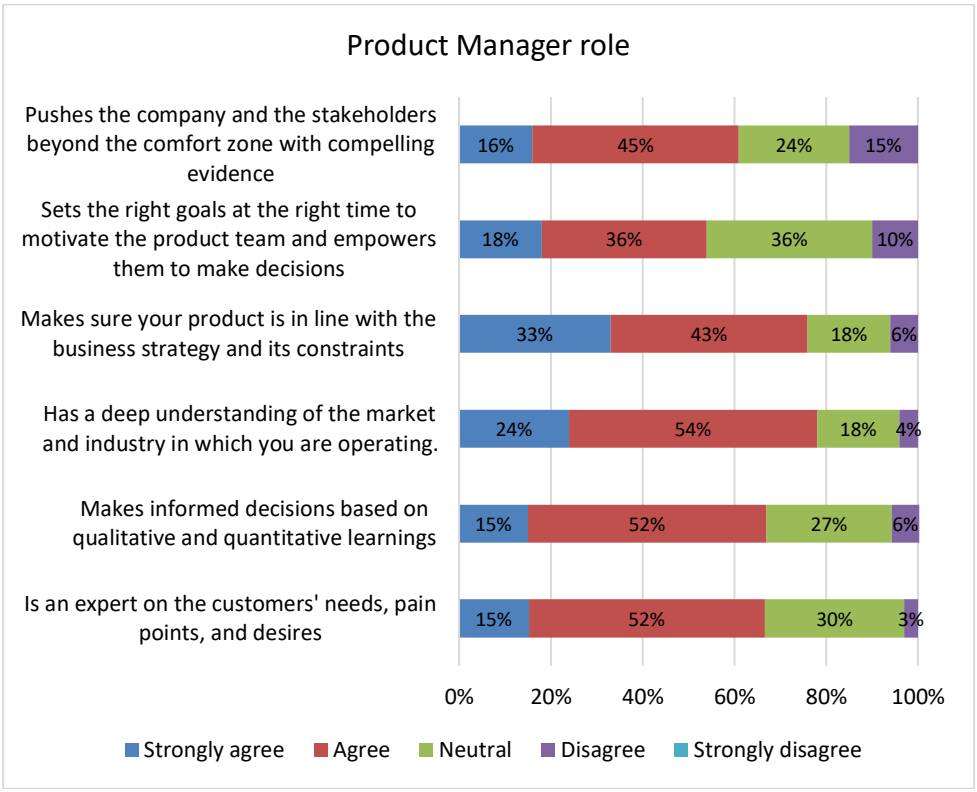

Figure 1. Product Manager role - roles and responsibilities

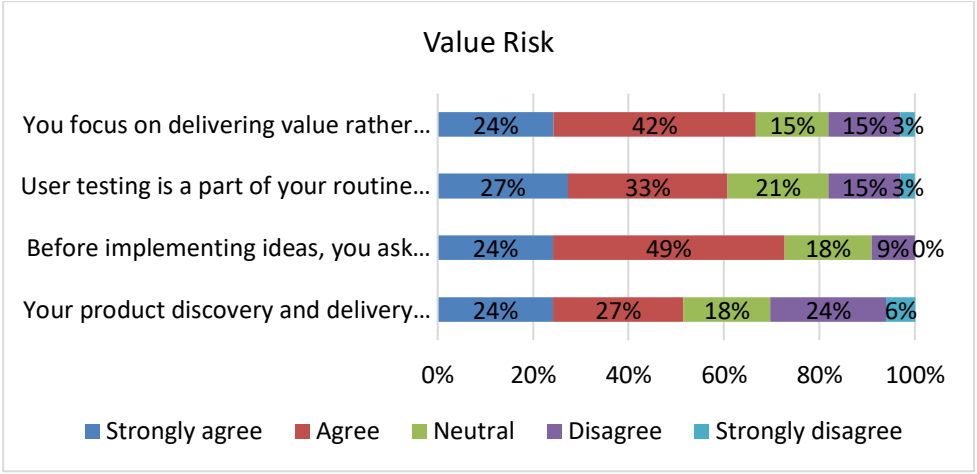

Figure 2. Tackling the four Product Management risks – Value

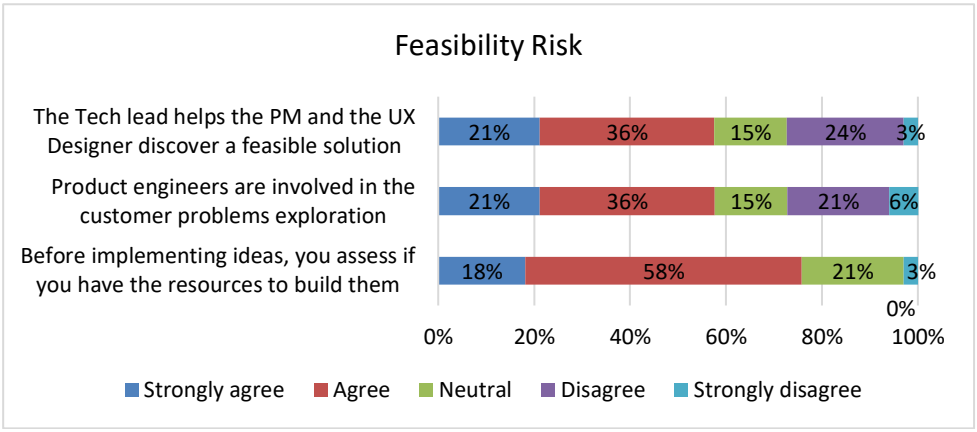

Figure 3. Tackling the four Product Management risks – Feasibility

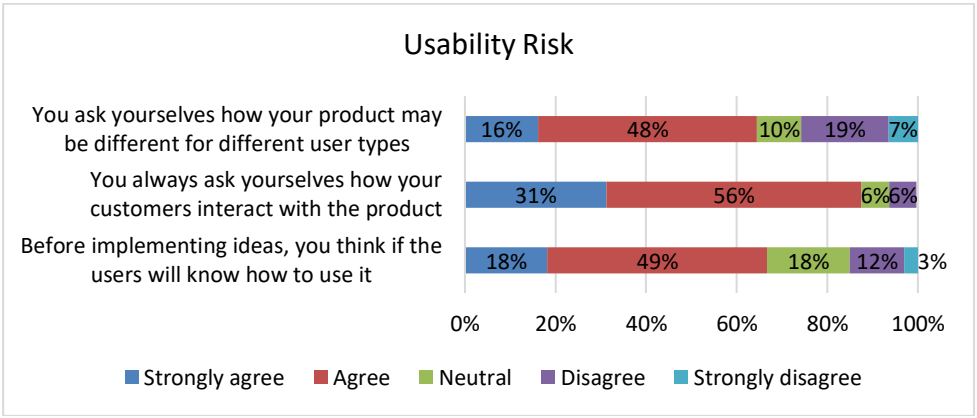

Figure 4. Tackling the four Product Management risks – Usability

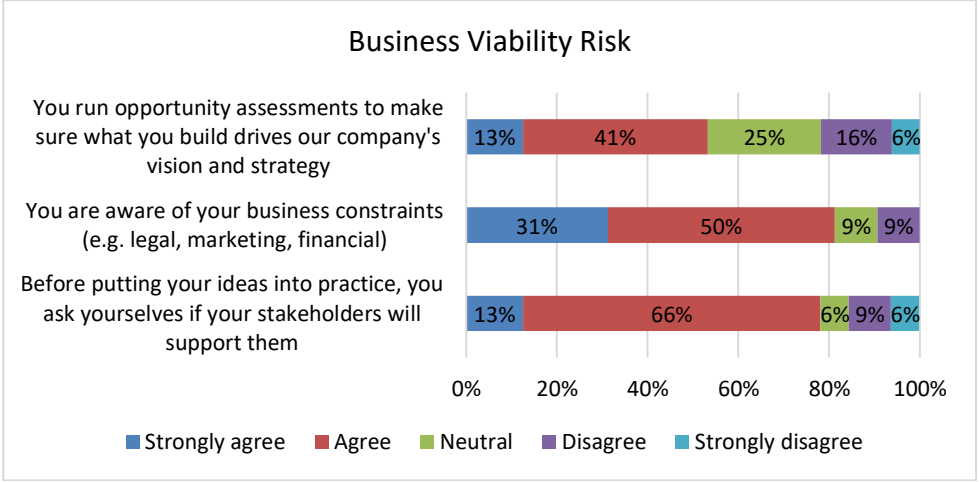

Figure 5. Tackling the four Product Management risks - Business Viability

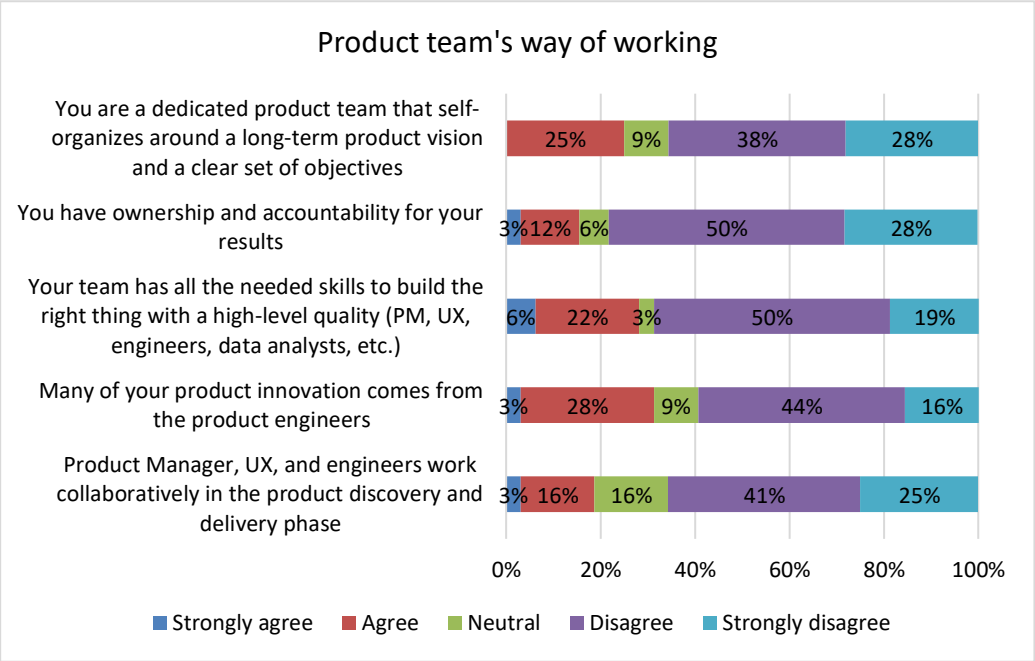

Figure 6. Product team - Empowerment, self-organization and collaboration

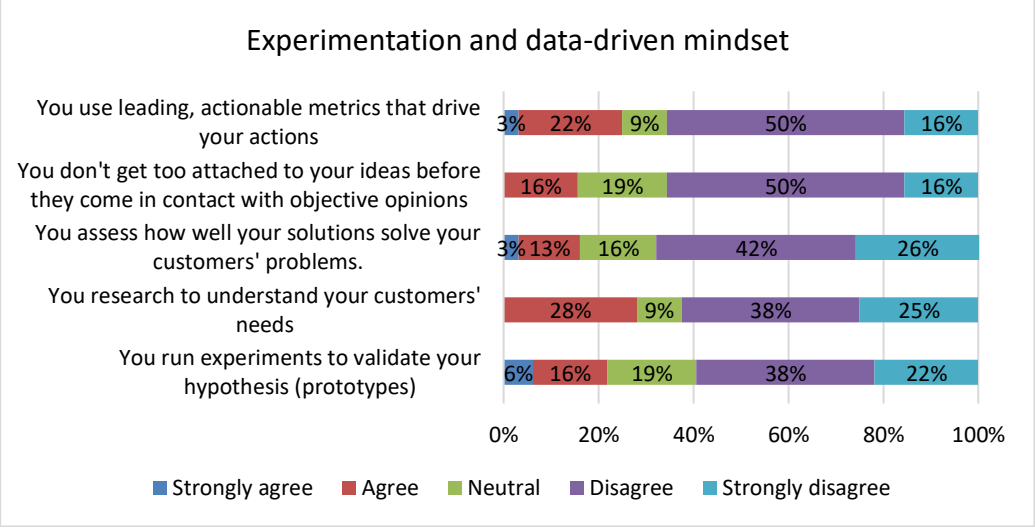

Figure 7. Experimentation and data-driven mindset maturity

5.3. Key Observations and Recommendations

The art of Product Management has a lot in common with understanding the industry, the market, and the customers. Around 70% of respondents agree or strongly agree that their product manager is an expert in understanding customers' needs, pain points, and desires (Figure1, row 6). Even more of them consider the

product manager has a deep understanding of the market and industry they are operating in (Figure 1, row 4). However, less than 20% of respondents agree that the whole product team is involved in the product's discovery phase (Figure 6, row 5). As the survey results indicate, there is a low level of empowerment of the product engineers. The product discovery phase seems to be perceived as a siloed responsibility, rather than a collaborative effort between the product manager, UX designer, and engineers. As a consequence, only 30% of respondents consider that product innovation comes from engineers (Figure 6, row 4).

Also, the lack of empowerment and autonomy on the product team level leads to a low level of accountability and ownership for their results – less than 20% of respondents agree that they feel accountable for their work (Figure 6, row 2). In association, less than 40% find it hard to self-organize around a long-term vision (Figure 6, row 1).

Another critical insight concerns the data-driven behaviour. While 70% of the respondents agree the product manager makes informed decisions based on qualitative and quantitative metrics (Figure 1, row 5), less than 30% consider that using actionable metrics is a practice that all the team's roles should adopt (Figure 7, row 1).

Organizations and product leaders should improve their ability to create an environment where the product teams feel safe to experiment, and make informed decisions based on data. They should define clear strategic guidance for the product teams, but give them the freedom to decide the best solution to achieve the vision. For that, engineers should step beyond the delivery phase and collaborate with the Product Management roles during a continuous discovery phase.

These aspects also reflect in product teams' ability to tackle the four Product Management risks. We can identify room for improvement in tackling the *Feasibility* risk – only around 60% of the respondents consider that the technical lead works with the Product Manager and UX designer to identify a feasible solution (Figure 3, row 1).

Similarly, the *Usability* risk results show that there is still room for improvement in understanding the customers' profile and interaction with the product. Only around 60% of respondents ask themselves how their product may be different for one user to another (Figure 4, row 1). For that, product teams should use UX techniques like user personas, empathy maps, customer journey mapping, usability testing, A/B testing, and usage metrics.

Furthermore, we notice that 80% of respondents pay attention to their business constraints and stakeholders to tackle the *Business Viability* risk (Figure 5, row 2, 3). However, only around 50% understand how their products contribute to the overall business vision and strategy (Figure 5, row 1). An essential practice that ensures focus, purpose, and alignment between all the organizational levels is the Objectives and Key Results method. It helps the product teams and the organization focus on concrete directions and assess their progress against specific success measurements.

Last but not least, only around 50% of respondents adopt a continuous discovery and delivery process, which is a good practice for assessing the *Value* Risk (Figure 2, row 4). To improve 'dual-track' development, product teams should adopt practices like: user interviews, market research, customer satisfaction metrics, design sprints, or prototyping.

6. Conclusions

Customer expectations for seamless products, which anticipate their needs and desires, will only increase as technology-powered companies continue to set the bar higher and higher. In this competitive market, the advantage will go to companies whose Product Management is based on innovation, customer-centricity, and Agility at all levels. However, it is still difficult to prescribe a concrete methodology that needs to be applied by the product teams to succeed. Product Management does not fit any of the common areas the organizations are already familiar with. As Moore (2019) said, "Product management is an interdisciplinary role that reaches across teams to plan, design, and continuously bring better products to the market."

This research identifies some common areas that need improvement from a Product Management perspective, even though these may differ from one context to another:

- Empowerment of product teams to make decisions
- Experimentation and a data-driven mindset at all organizational levels
- Collaborative continuous product discovery and delivery between all product roles: Product Manager, UX designer and product engineers.

References

[1] Cagan, M. (2018). *INSPIRED: How to Create Tech Products Customers Love*. Hoboken, New Jearsey Willey.

[2] Cagan, M., SVPG (2020). *Product Management is hard*. [Online]. Available: https://svpg.com/product-leadership-is-hard/.

[3] Croll, A., Yoskovitz, B. (2013). *Lean Analytics.* O'Reilly, ISBN: 978-1-449-33567-0.

[4] Gnanasambandam, C., Harrysson, M., Srivastava, S., Srivathsan, V. (2018). *The Product Management dilemma.* [Online]. Available: https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-product-management-talent-dilemma.

[5] Horwath, R. (2021). Strategic Thinking Institute, *The Strategic Thinking Manifesto*. [Online]. Available: https://www.strategyskills.com/pdf/The-Strategic-ThinkingManifesto.pdf?gclid=CIaV2fG0v88CFcVlfgodSBUM8A.

[6] Oslen, D. (2015). *The lean product playbook*. Hoboken, NJ, USA John Wiley & Sons; 1st Edition (June 2, 2015), ISBN-13: 978-1118960875.

[7] Perri, M. (2019). *Escaping the build trap*. Beijing: O'Reilly Media, ISBN-13: 978-1491973790.

[8] Product Pan (2021). *The 2021 State of Product Management Annual Report.* [Online]. Available: https://www.productplan.com/state-of-product-management-report-2021/.

[9] Ries, E. (2011). *The Lean Startup*, New York, Crown Business, eISBN: 978-0-307-88791-7.

[10] Moore, J. (2019). *Product Management: How to create Real Value with Effective Product Management.* Independently published, ISBN-13: 978-1686901126.