



DIGITAL INNOVATION AND ITS IMPACT ON PRODUCT R&D

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Executive Summary

Innovation plays a vital role in any business for it to gain and sustain a leadership position in the market. Digital technology is at the center of every innovation strategy today, and in many ways it influences how businesses think about product research, development, and their go-to-market strategy. There are several market trends and factors of change that have led to opportunities in the market, which very few businesses have been able to exploit through differentiated innovation. As a result, these businesses have benefited with greater market capitalization, consumer loyalty, and higher topline growth.

This paper starts by exploring some of the trends, followed by highlighting the opportunities arising out of them, and follows it up with a plan on how businesses can take a structured approach to digital innovation.

Introduction

Businesses have realized that traditional R&D done over a longer time frame and with just the core product composition in mind, is no longer sustainable in the current digital world. Majority of the innovation that makes news today, has digital at the core of the offering.

If you look around, in the current context, there are many fresh initiatives from a variety of businesses across the world. To quote a few recent examples, clothing brand Diesel¹ is encouraging their consumers to become influencers by promising them loyalty points/cash rewards in return for every sale influenced by them through social sharing. Japanese FMCG Company, Rohto² is releasing a limited edition sunscreen product with the copy printed on the packaging in reverse to appeal to the selfie seeking crowd. Alibaba³ is developing a smart screen overlay that allows blind people to shop using smartphones.

Trends influencing Innovation

In all the cases mentioned above, you can see the brands innovate by capitalizing on certain consumer trends. In the first case, Diesel is encouraging social sharing among its consumers, which is already widespread, and offering incentives to do this even more and converting them to brand advocates and affiliates. In the second, Rohto is using today's selfie culture to its own benefit by providing Instagram friendly packaging, via packaging that can be read easily on a selfie. In the third, Alibaba is addressing the rising expectation for inclusivity in all offerings for typically overlooked consumer groups.

You can see here that the brands focus not just on the core product benefits, but also on ways to offer a memorable experience for the consumer with the launch of their product. The case for innovation has always been clear with market leaders like Google, Samsung, and Amazon investing heavily⁴ on continuous innovation and product development. The investment is clearly in alignment to their rapid growth as leaders.

The important point to note here is that over the years, what has changed is the way digital has gone mainstream to be at the center of their innovation strategy. Somehow, it is imperative for businesses to study the consumer landscape and understand the ongoing trends before and during the product R&D, in order to go to market with a relevant offering.

Key factors driving change

Many such trends originate given the state of evolution at which the digital world is in. If we look at it, some of the key factors that have driven this change are rapid proliferation of digital channels of engagement that the consumers use today, focus on experience centric innovation, the need for rapid and iterative digital innovation, and the need for emotional connect that each consumer desires with a product or service.

 <p>Proliferation of digital engagement channels</p> <p>Technology Landscape is changing quickly AI, IOT, VR, AR, Machine Learning</p>	<p>Experience centric innovation +</p> <p>R&D focused more on enabling consumer experience than product benefits#</p>  <p># http://www.nielsen.com/us/en/insights/reports/2016</p>	<p>Digital Innovation needs to be Quick & Scalable</p> <p>Fail fast, succeed early!</p> 
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Proliferation of digital media

These trends present opportunities for businesses to accelerate innovation. A lot has been discussed across every other medium about the proliferation of digital channels/media (read online, social, mobile, smart devices, speakers) for quite some time now and we know that each presents an opportunity for channel-specific innovation. A simple example to explain this is, while you may want to build a consumer facing website which simply provides information on products that helps them decide and purchase, the other channels add to the convenience factor for consumers based on the context they are in. Maybe while they are at home, it is easier for them to just ask their smart speaker like Alexa to find out the details and then subsequently even place an order. So, brands have to be nimble to identify opportunity arising through new digital channels and figure out innovative ways to engage their end consumers.

Experience centric & rapid innovation

While the new channels add convenience, they also raise the expectations of the consumers. A Nielsen report⁵ identified that R&D today is focused more on enabling consumer experience than the product benefits. So, it is about determining different ways to form the emotional connect with the consumer that will get them to keep returning to you every time they think of a specific product. This underlines the need for more number of testing iterations where you learn what the consumer desires.

Earlier, there was a waterfall approach to product development, where the consumer research was completed, product manufactured/service built and launched to consumers as per the business plan. Innovation was achieved by differentiation in the core product benefits to the consumer, or across several areas of value chain that together resulted in a valuable experience for the end consumer. The consumer affinity to the product was gauged mostly post production, based on the revenue and demand generation in market. The medium of engagement with consumers was such that, it did not allow for quick iterations as it required businesses to revamp their execution strategy.

To put things in perspective, consider an FMCG company developing a beauty product. A lot of time would have gone into research to find the best ingredients, followed by sourcing, manufacturing, packaging and distribution in market. After having launched a product in a certain market, there was considerable time required to relaunch if there was a certain consumer shift observed in the market. However, one key shift today is that, during the product development itself, there are ample opportunities for the business to connect with their potential consumer, and sense the reception to their product, through online selling and digital engagement which can be adapted as per the preferences.

Businesses today are continuously launching new products on the digital media and trying to establish a direct connect with the consumer. In the FMCG world, corporations have sensed the opportunities offered by direct selling, which the retailers have already capitalized on. Retailers now challenge FMCG businesses with private label products that increasingly eat into the overall market share. Direct consumer selling doesn't just provide businesses an opportunity to increase topline growth but also to connect with the consumers, offering them what they have been missing so far in terms of overall product experience and gather valuable insights to feed into future product development. However, this whole approach to the digital innovation and adapting to the digital media has to be done in a structured manner which we term rapid and iterative innovation.

One such example of how businesses are adapting to these changes is provided by Shiseido which is a Japanese personal care company that recently setup office next to Alibaba's headquarters⁵. This will allow them to react faster and tailor their product offerings based on the consumer insights they get from Tmall innovation center, with the eventual goal to reduce the overall product R&D timeframe.

In all this, opportunity provided is the one of empathizing with your consumer and in certain ways redefining your product to the version that satisfies them most. To be successful at that, the trends and factors of change must be identified early by businesses, and the market opportunities arising out of these must be met with ideas that can be tested with your consumers repeatedly. This would really put a business on a long term growth path and it requires a structured approach of iterative test runs that provide learnings, and eventually lead to understanding the consumer better. The following section talks about considerations needed in taking such an approach to digital innovation.

Approach to Digital Innovation

When we talk of iterative innovation, it is all about having multiple bets in your strategy rather than banking on few ideas and losing time trying to execute them. It makes sense if you go with a large bucket of ideas and plan a budget for each of them and start executing. During this process, you are able to realize which idea seems to be more promising in the whole list. This allows for real-time re-prioritization of ideas to prototype and test out with your consumers. It is imperative that there is a well thought plan to embed digital experience innovation into your product R&D phase. Typically, as a business, you will need to consider the below key points.

■ Access to a digital partner who can

- setup nimble POD/Agile teams that can co-create with you
- ideate using design thinking principles to transform raw ideas into functional prototypes
- determine solution feasibility aligned with your product vision based on thorough evaluation of underlying technology, market, and launch timelines
- understand emerging technology and consumer trends
- define process & operating model to manage innovation
- be flexible to plan their teams based on technology most relevant to your business
- churn out consumer-ready digital applications
- hook up the new test systems to your existing landscape, if required
- implement systems that gather data from your market tests
- do iterative solution prototyping and data gathering
- develop a product roadmap for future iterations

■ Access to consumer groups for continuous research

- Recruit consumer groups through agencies that could be leveraged for a certain period where you can test an idea, and gather feedback to continuously improve the product/service experience.

■ Brainstorm and develop a data strategy based on business objectives

- Plan to gather the data, keeping in mind the overall goals for the product, and identify the KPIs that will help measure the performance.

■ Generate insights and feed into future product development

- Onboard a data science expert either in-house or outsourced, who can recommend the best hypotheses or ideas to build upon, based on the data available
- Brainstorm with the digital partner team to identify new areas of innovation and quick ways to test them

■ Prepare to productionize the solution prototype

Focus on answering key questions like

- How do I scale the prototype to production grade?
- How do I roll-out the solution across all my markets?
- What would be the support ecosystem required for this solution?

Conclusion

The above approach provides the key considerations that a business can make while drawing up an innovation plan. We have noticed that such an approach combined with the right engagement model can work really well and accelerate the innovation process for our clients.

At Mindtree, we partner with global clients on innovation initiatives and drive such conversations with the help of Digital Pumpkin, our innovation lab where we follow design thinking principles to bring to life various business ideas.

References

- 1 <https://econsultancy.com/diesel-loyalty-affiliate-influencers-side-biz/>
- 2 <https://japantoday.com/category/features/new-products/japanese-beauty-product-prints-english-backwards-on-package-so-women-can-take-better-selfies?>
- 3 <https://techcrunch.com/2018/11/11/alibaba-haptic-button-blind-shopping/>
- 4 <https://www.statista.com/statistics/265645/ranking-of-the-20-companies-with-the-highest-spending-on-research-and-development/>
- 5 <https://www.shiseidogroup.com/news/detail.html?n=0000000002660>

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