

Digital Health: Increasing the Quality and Efficiency of Care

New technologies allow for direct patient care and necessitate an overhaul in the focus of healthcare industry business models

It is becoming clear that in order to stay relevant in the future healthcare ecosystem, pharma companies must look to business models that foster much more direct patient engagement than previously. New methods offer significant potential in increasing the quality and efficiency of care. Digital health solutions could therefore solve the major long-term issues of pharma's most important client groups – patients, providers and payers – all at the same time.

In order to implement innovative solutions ahead of new entrants, pharma companies will need to undergo major transformation programmes and convert three completely different value chains: pharma, medical devices for measuring health parameters, and IT solutions to process and connect data.

New Solutions from Non-traditional Sources

Many of the innovative solutions that digital health offers are being developed by non-traditional entrants to the healthcare arena. They are now providing new offerings that are very quickly changing the dynamics of how the ecosystem works, and, in particular, how the individual patient is engaged.

One telling measure is the amount of venture capital that is continuing to flow into the digital health market. According to digital health start-up accelerator Rock Health, USD2.1 billion was invested in digital health start-ups during the first half of 2015 – up 25% compared to the previous 12 months. The biggest portion, USD387 million, went to wearables and biosensing companies, but analytics and big data, as well as electronic health records, are other categories that are seeing significant investment activity and a vibrant innovation environment.

The innovations coming from outside the traditional healthcare industry span a wide spectrum of products and services, but all take advantage of advances in digital technologies and the ability to analyse and present large amounts of data in new ways. From new biosensor technologies and smart devices to portals and physician guidance tools, there

are numerous exciting breakthroughs that allow enhanced self-monitoring capabilities and patient adherence – and ultimately superior clinical decision-making and treatment success. Add on the data analytics capabilities that are now being put to use by purchasing bodies (payers) and hospital systems, and it is clear that healthcare is in the middle of a profound transformational shift.

Relationships are Key to Embracing Digital Health

In order to understand the disruptive power of digital health and its impact on pharma, one has to take a closer look at the relationships within this well-connected ecosystem. Traditionally, healthcare providers, payers and pharma companies have had a conventional supplier-consumer relationship.

However, there are now increasing demands from payers and providers around the delivery of better health outcomes and greater cost-effectiveness. These provide a strong driving force for pharma companies to more actively engage in the opportunities arising from the digital revolution and patient-centred care. More than ever, regulatory bodies now insist on pharma companies demonstrating benefits and cost-effectiveness, with many countries introducing reforms that aim to restrain overall spending. Ensuring responsiveness to treatment and patient compliance, while minimising side-effects, are therefore key success factors if

pharma companies are to meet society's demands.

A Customer-centric Vision Includes the Patient, Practitioner and Payer

In order to achieve these new success factors, pharma companies need to begin a process of transformation. The proven classical, product-centric approach with an indirect value chain will not be able to embrace the required speed, new collaboration needs (as shown in Table 1), flexibility and ability to learn quickly. A pharma value chain in a digitalised environment needs to incorporate new characteristics. Therefore, as a first step,



Table 1

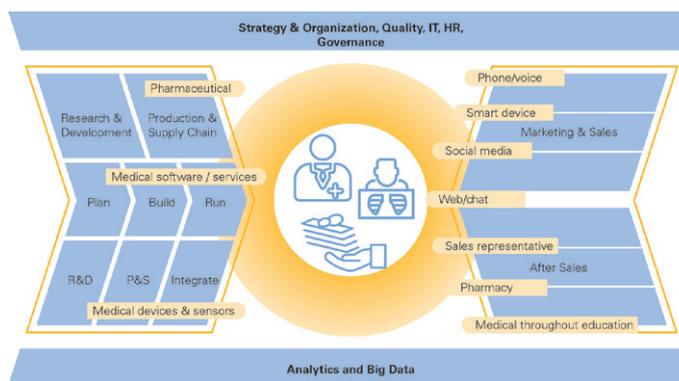


Table 2

the company needs to develop a vision of how it will earn money in the new digitalised world. Will the revenue model stay? Will the business model instead be built around new manufactured products or services? What will the portfolio and customer experience look like? A vision of how a transformed organisation can be structured is shown in Table 2.

In such a vision, pharmaceutical product offerings can be strengthened through complementary digital software/digital services offerings. These help patients with their treatment, help practitioners with their work, and give them insight into the success of their treatments, while helping payers and legal entities to receive proof of efficacy. Depending on the pharmaceutical product, medical devices and sensors will measure the consistency of product usage and its success. The combination

and decide where to build up skills and capabilities internally, and where to use new partnering models and external interfaces. The overall product strategy is communicated and a product development excellence project is set up, such as enabling an approach to personalised medicine.

2. Customer Management

Customer management is the core of the transformation programme. Here we define the strategic components as well as the governance structures for a customer-centric and digitalised pharma company. The different customers (patient, practitioner and payer) are analysed and high-level customer journeys are defined. These journeys are the basis for more

implement these basic enablers are the highest priority as they span multiple use cases and touch-points.

4. Big Data Analytics

A digitalised and customer-focused value chain offers new opportunities for gaining insight, measuring success and driving improvements. As a basis, we recommend creating a lean, cross-business-unit, technology-focused big data analytics team that has the technical and consulting capabilities (covering data scientists, the provision of a big data cluster, etc.) to help business units with the implementation of new analytics methodologies. Within the business units, capabilities need to be created for each purpose, such as using the technology in R&D for personalised and precision medicine based on field data. Clear data analytics responsibilities are set for each business unit to enable fast learning, such as touch-point analytics to assess how well particular touch-points are accepted and how they can be improved.

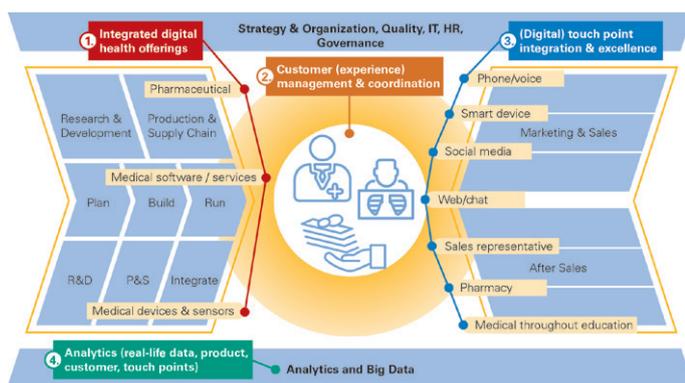


Table 3

of all three product groups results in an integrated digital health offering that is able to give a new competitive advantage.

The “customer” is at the centre of this vision. This includes not just the patient/consumer, but also the practitioner and the payer. All products and services, as well as all administrative processes, focus on long-term customer value through customer group-specific journeys.

To create action plans and concrete initiatives, the transformational need has to be cascaded down to processes, data and technology requirements, and management capabilities. The major challenge to success is the need to integrate organisations, concepts, processes and technology. A successful transformation programme typically incorporates the major pillars of the new vision within four fields of action, as shown in Table 3.

1. Integrated Offerings

To define integrated digital health offerings, we have to set the overall future business model and its components, incorporating existing products and business units. By analysing the existing product portfolio and comparing it to the new business model components, gaps become apparent. We can define

detailed use cases – experiences with the brand from the customer point of view – such as a treatment process or information-gathering across different touch-points. Especially for big pharma, it is not possible to drive this transformation through a deep-dive, top-down approach. Therefore, we favour a “highly aligned, but loosely coupled” approach in the execution of the programme, in which the detailed use cases will be run by dedicated owners who have end-to-end responsibility for both budgets and success. The company will run a lean customer integration office where the use cases are consolidated. Existing company committees for budgeting and prioritisation will be extended so that top management is able to make decisions based on customer and business value.

3. Customer-focused Touch-points

As major enablers of customer-focused use cases, touch-points and their back-end capabilities need to be built and integrated. Based on the use cases and their requirements, we define and prioritise touch-point projects, such as online consumer chat or a new digital sales representative application. Overarching capabilities for an integrated journey are defined as well, covering customer data and customer relationship management, as well as knowledge management. Projects to

Conclusion

The pharma industry today is facing a complex and difficult situation, in which parts of its business may be disrupted by new market entrants, whereas other areas will be suited to a traditional business model for many more years. The industry therefore needs to avoid introducing immature services too fast in areas where there is no urgency, and to correctly set priorities.



Ulrica Sehlstedt

Dr Ulrica Sehlstedt is a Partner in the Stockholm office of Arthur D. Little and a member of the Global Healthcare Practice.



Nils Bohlin

Nils Bohlin is a Partner in the Stockholm office of Arthur D. Little and leads the Global Healthcare Practice.



Fredrik de Maré

Fredrik de Maré is a Partner in the San Francisco office of Arthur D. Little and leads the US West Coast Healthcare Practice.



Richard Beetz

Dr Richard Beetz is a Principal in the Frankfurt office of Arthur D. Little and a member of the Global Technology and Innovation Management Practice