

Business Design for High-Tech Start-ups

Reliable risk assessment in early-phase business start-ups

“Germany – Land of ideas”. This memorable slogan is promoting Germany as a base for business, innovation, education, research and study. But Germany needs more than just ideas. All too often, outstanding developments in this country fail to take the hurdle to finally become reality. Alternatively, their initiators opt to migrate and establish viable businesses abroad instead. Too rarely do good inventions become real innovations, especially if they are cutting-edge technologies developed at German universities. Research findings are put to insufficient use in order to create marketable products and services. Germany continues to lack growth-oriented start-ups: technology-based, scalable new businesses.

Rather than depending on a wealth of ideas, the prosperity of societies today and in the future is a question of innovation. Surely, it is in the interest of us all to market more technological developments as innovations. As the Centre for Innovation and Business Creation at the Technical University of Munich, UnternehmerTUM is a major contributor in this area. It brings together entrepreneurial thinkers with promising technologies and offers systematic support in establishing targeted innovations and businesses. At the same time, it works to reduce the uncertainties facing business founders and venture capital investors.

Technology Push vs. Market Pull

New technologies often bring radical change. Computers and mobile phones are just two of the technological innovations that have had a massive impact on our lives, changing them completely. But technology has also changed the way we behave as human beings; it has opened up new markets and turned existing ones on their heads.

Not every technology, however, has the potential to change the way we behave. A whole series of technology-driven inventions have bypassed the needs of their potential users by completely or taken too long to become successfully established in the marketplace. Start-up ideas based on market pull offer greater potential for success although their effects may be less far-reaching and consequently harbour less potential for growth. One fundamental challenge facing technology-based business start-ups lies in identifying the market perspective early on and using this knowledge to boost the chances of success significantly.

The great unknowns

Sadly, many technology driven start-ups do not focus their activities on adding value for their potential customers. Far more, users’ expectations often remain the great unknown for start-up teams. The market perspective and customers’ needs can be a major unknown for new businesses – but they are certainly not the only ones. Many business creators are unsure about the technical feasibility of their project but also about their business model in particular. Questions arise as to how it can be made viable and scalable. And then, of course, there are the unknowns of the business team itself, which might begin to question whether it has the right people on board and whether everybody is pursuing the same goal.

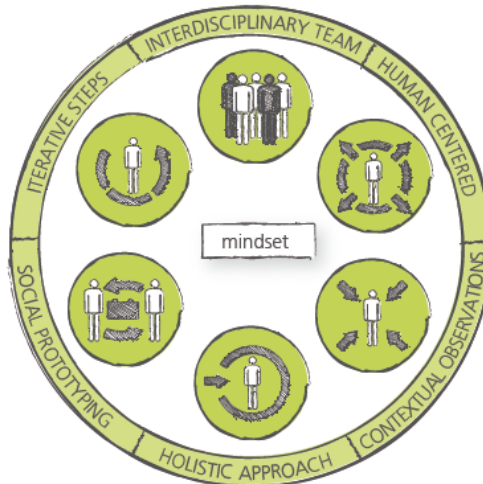
Design or fail

Those looking to set up a new business need to tackle these unknowns as quickly as possible – and this is where methodologies from the world of design come in. In a business context, the term “design” refers to far more than just shape; it relates to a series of factors that are fundamental to business success, such as customers’ needs, product functionality and business viability. When creating new products, designers explore the real needs, wishes, desires and longings of their customers while at the same time considering technological feasibility and profitability. So, why not apply the principles and methods of design to innovation and business start-up projects? UnternehmerTUM is doing just that. By successfully applying them in a business context, it is supporting the development and optimisation of products, services, business models, processes and strategies.



Business Design

The Business Design approach allows innovation and start-up teams to apply recipes for success from the world of design to their own business tasks. It is based on a mindset consisting of six design principles, the first of which is the Interdisciplinary Team. The second principle, that of Human Centeredness, encourages innovation teams to focus on the user or customer. For technology-based projects in particular, this can result in a timely and effective focus on the market. In the next stage, project teams gain a deeper understanding of customers’ needs, wishes and values through Contextual Observation of their target group in their real environments. A Holistic Approach helps the team think in systems and reach beyond their usual horizons. Social Prototyping uses visualisation techniques to encourage creativity and promote communications within the group. It also enables the team to generate a range of possible solutions for presentation to potential customers and experts. Early stage feedback gained in this way allows the team to refine its solutions in Iterative Steps until it finally receives the optimal result it was looking for.



Further elements of Business Design for start-ups include an archetypal start-up process consisting of three phases: Conception, Development and Launch. Business Design also encompasses five key areas representing the fundamental building blocks of an organisation. In combination, these elements allow project teams to map out the main challenges they face and overcome them using the methods and tools provided by the Business Design approach.

Benefits for business founders

Business Design can be a major force in helping business teams eliminate as many unknowns as possible that might otherwise hamper the start-up process. Increasing the focus on the customer can enhance the Fit To Market significantly. Moreover, Social Prototyping offers considerable potential for reducing the Cost To Market. Prototypes and early-stage customer feedback can also help convince investors of a business team's undertaking, while at the same time helping those involved to gain a more uniform understanding of the direction their future business will take. Exposing a new business to market influences early on can also be extremely beneficial in reducing Time To Market.

Benefits for investors

Business Design can also reduce uncertainties for venture capital investors by making it easier to gauge the higher risks entailed in early-stage business start-ups in particular. Valid customer and expert feedback, for example, can help investors identify a young business team's potential very early on. Moreover, as well as gaining insights into profitability and technical feasibility, investors stand to benefit from stronger commitment on the part of a well-established business team.

All in all, Business Design harbours considerable opportunities for business start-ups (especially those working on technology-based projects) and venture capital investors by enabling them to evaluate risks more accurately. When it comes to turning university research results into business start-ups, Business Design represents a major building block, helping innovations reach people more quickly.

The author

Manuel Götzendörfer is a senior consultant with UnternehmerTUM, the Centre for Innovation and Business Creation at the Technical University of Munich. Design and innovation management formed a key part of his doctoral thesis. He is also a co-founder and managing partner of Temotions GmbH & Co. KG.

UnternehmerTUM is the only university-based business start-up centre in Germany that works actively to develop entrepreneurial skills, identify promising technologies, and systematically initiate innovation and business start-up projects. Every year, UnternehmerTUM's seminars and lectures inspire more than 1000 students and scientists at Technical University of Munich to become more entrepreneurial in their ideas and practices. By matching the right people with the right technologies, UnternehmerTUM supports 50 business start-up and innovation projects every year.

