Institute of Information Management

University of St.Gallen

Future Trends and Requirements in Educating and Re-Educating the Workforce in the Financial Industry

Prof. Dr. Benjamin van Giffen*

Prof. Dr. Walter Brenner

Nithujan Prathapan

Institute of Information Management

Müller-Friedberg-Strasse 6/8

9000 St. Gallen, Switzerland

*For further inquiries

please contact the corresponding author at

benjamin.vangiffen@unisg.ch

Foreword

Dear Readers

New technologies and shifting market dynamics pose novel challenges and opportunities for the financial industry. With this report, we share the result of an intensive year of research, collaboration and industry exchange in which we identify the "Future Trends and Requirements in Educating and Re-Educating the Workforce in the Financial Industry".

My research team and I would like to thank HCL, and particularly Sudip Lahiri, Senior Vice President and Head Financial Services Europe, for supporting our research and for hosting the roundtable with industry experts in Zürich earlier this year. The presentation and critical discussion of results on the leadership roundtable was an important part of the study.

We would also like to thank the leaders who participated through interviewees and feedback on the leadership roundtable. Without their help, the study could not surface the rich insights generated and presented in this report.

In this report, we identify and elaborate on some of the key challenges that the financial service industry is currently experiencing. We put together seven themes and many recommendations for researchers and practitioners. That being said, we hope that you, dear readers, find these learnings and recommendations insightful and valuable for your future strategizing and decision making.

Yours sincerely,

Prof. Dr. Walter Brenner

Full Professor and Executive Director of the Institute of Information Management
University of St.Gallen

Dear Readers

Earlier this year, as we were looking ahead to a decade of technological disruption, we wanted to understand how engineers and engineering need to evolve from our customer's point of view. As the past decade came to a close, the gap in technical and technological skill sets had already emerged as a critical challenge. The current pandemic has exacerbated the gap between the needs of the financial services industry and the emerging technological landscape, which has altered their business and customer dynamics. Financial services stand at a critical juncture now, with major changes needed to be implemented if the industry can emerge from this pandemic resilient and stronger.

With the pace of change, experiments and deployment seen, a subsequent and consistent skill-set gap has emerged as a key feature of this crisis. Considering this dynamism in the landscape, we recommend a strategy that many organizations are now adopting – one of culture of change and innovation mindset. Recognizing which specific tool or technology needs focus has become a myopic process. Instead today, businesses should look at a whole array of skills to be learnt and re-learned – from technical skills needed to truly understand today's digitized inter-connected world to softer skills in talent management, repurposing and optimization.

At HCL, we believe there is an urgent need to reevaluate our work spaces to make them more agile, responsive, efficient and digitally resilient. There cannot be one unified successful approach. Instead thriving in the Next Normal would mean adapting continuously, working in an agile manner to continuously "learn, un-learn and re-learn" as different technologies and solutions emerge to address specific problems. That means engineers need to have full stack capabilities whereby they are comfortable with the accelerated pace of change in their environment. Businesses can then hope to retain IT competitiveness, secure systems and expand their workforce's productivity. To be successful in the Age of the Pandemic, we need a mindset that embraces change and indeed thrives in it.

Our collaboration with The University of St. Gallen investigated this much needed cultural change through the lens of the change makers themselves – business leaders, industry experts, academia and influencers. The result is a study that we hope will help create a roadmap for organizations as they navigate this age of evolving, dynamic skill sets, business environment and targeted expertise. The study is not a recommendation of certain tools or technology, but rather an overview of the practices that organizations may adopt to keep up with the pace of the current change.

We hope that you find it useful and relevant.

Thank you and kind regards,

Sudip Lahiri

Senior Vice President & Head Financial Services Europe
HCL Technologies

Please cite as:

van Giffen, B.; Brenner, W.; Prathapan, N., (2020). *Future Trends and Requirements in Educating and Re-Educating the Workforce in the Financial Industry. Industry Report of the Institute of Information Management, University of St. Gallen.*

Executive summary

Background and objectives

New technologies, changing customer expectations and a competitive business environment impact financial firms and their workforces in Switzerland. Financial firms are aware of the need to transform to be successful in the future. The measures and best practices they apply are analyzed and presented in this study. The analysis showed that there is no single successful approach, and that successful firms engage in a variety of activities to transform their workforce, learn fast and are capable to adapt to changing needs. The analysis also showed that the focus of financial firms is to educate, to re-educate and to create a culture of change in the workforce.

The objective of this study was to examine how financial firms transform in the light of the outlined market and technology developments. More precisely, what measures do financial firms take regarding their workforces to meet changing customer expectations, to adopt new technologies, and to stay competitive in the market.

Key findings

Customer experience is the key driver of change in the financial industry. Financial firms have recognized that customer needs are changing based on customer centric experiences from other industries. In the new era of financial industry, where switching costs are low the bargaining power of customers has significantly increased.

Digital workforce enablement is inevitable in a world where every interaction becomes digital. Financial firms are taking measures to prepare their workforce to master becoming more digital and interact with the customers accordingly. They are offering educational content on digital technology and enable digital collaboration through digital collaboration tools.

Incubation and innovation are key transformational aspects since the pace and dynamic of the financial industry has significantly changed. Financial firms need to incubate and innovate faster, adapt to customer needs and implement new technologies in a way that benefits the organization. Financial firms take measures to embrace an innovative mindset in the workforce, pursue novel partnerships in ecosystems and enable the so called “startup mentality” in their organizations.

Agility and agile culture is needed to foster an innovation and incubation on an organizational level The study found out that financial firms are moving away from rigid hierarchical structures to a more agile way of working. Financial firms are aware that working in teams and generating bottom-up innovations have become a necessity. Also, new performance systems are introduced as measures to award team spirit and collaborative working.

The simplification of the application landscape is inevitable for financial firms to increase speed-to-market. Over the years, financial firms embedded many applications in their existing IT landscape which led to slowness and inefficiencies. The interviewed leaders recognize that the IT legacy is an obstacle for speed-to-market and good customer experience. IT legacy also hinders financial firms to effectively compete with new players entering the market. New players can build their application landscape from scratch and in a customer-oriented way which allow new entrants to provide exceptional customer experience at affordable prices.

Automation & efficiency programs are needed because financial firms face operational efficiency pressures due to competition and changing regulations. Financial firms are much aware that 40% to 60% of current jobs in the financial industry could be automated in the future. Thus, financial firms are preparing their workforces with education and re-education measures, create new job roles and promote self-directed learning. Particularly, the study found out that the responsibility to prepare for the future is shifting from employer to employees. The employer provides the possibilities and it is up to the employees to prepare for future job roles.

The study covered the measures taken by the financial firms to transform. However, our study shows that not enough urgency in the workforce is created to achieve the desired changes. Only if the measures can drive change on an organizational level, a financial firm can go through a successful transformation and remain competitive in the future.

Research methodology

The first part of the study involved interviewing leading industry experts from financial firms in Switzerland. The experts were recruited for in-depth interviews based on their qualification and track record in the financial industry. The interviews were transcribed, and the data was analyzed systematically by coding the data into several topics. Following, the emerged topics was intensively discussed and assessed by the research team. The second step was to organize a roundtable event with support from HCL to delve more deeply into the findings of the interviews and allow for exchange between industry experts. At the roundtable event, the emerged topics were presented by the research team to the industry experts to further engage discussions. The roundtable discussion helped the research team to get an integrative perspective on the challenges and key topics in the financial industry in Switzerland. As last step, all the insights from the interviews and roundtable discussions were consolidated for this industry report to present insights on future trends and requirements in education and re-education of the workforce in Switzerland's financial industry.

The Fourth Industrial Revolution in the Financial Industry

THE FINANCIAL INDUSTRY IS EVOLVING

The fourth industrial revolution had a staggering effect on certain industries. The financial industry is experiencing high levels of automation and digitalization in adapting its customer engagement models to the changing environment.[1] This includes the digitalization of back-office processes, straight-through processing (electronic transactions not requiring human intervention) and online banking, leading to challenges to adapt the workforce and finding the right talent.

According to a report from the World Economic Forum[2], new technology will create twice the number of jobs they replace. This is a huge opportunity for economies, as the report suggests that new technologies have the capacity to both disrupt and create new ways of working. However, there is an important fact to consider – for companies and governments to capitalize on this, greater investment in training and education is required to help workers adapt. The WEF report found that urgent challenges for reskilling workers and safety nets are required to protect at-risk jobs.

As financial firms seek to prepare for the challenges ahead, there are pressing concerns on what route they should take. For the Swiss financial industry, the risks are even higher. Substitution effects can have a strong impact on the labor market.

A Deloitte study states that almost 48% of all Swiss jobs could, in principle, be automated. Some participants in this study stated that the number might even go up to 60% in the financial industry. However, the complementary effects of automation could lead to more jobs being created than destroyed.

Those novel challenges force organizations in the financial industry to rethink and challenge their status quo. Financial firms need to master the interplay between *business*, *technology* and their *workforce* (Figure 1).

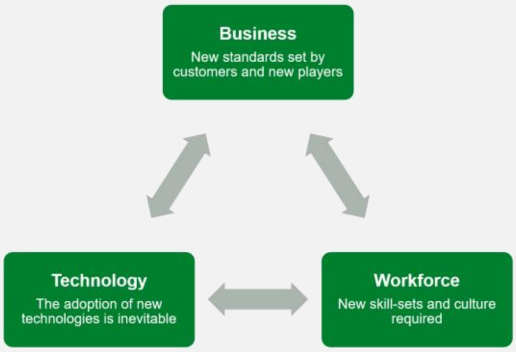

Figure 1: interplay between business, technology and workforce

The awareness and management of the complex interplay between technology, business, and the workforce are key to stay competitive in the future.

[1] Adecco Group and BCG, Future-Proofing the Workforce (2019)

[2] WEF, The Future of Jobs Report (2018)

CHALLENGING NEW BUSINESS ENVIRONMENT

By 2030, 80% of heritage financial firms could go out of business, become commoditized or exist only formally, but unable to compete effectively. Those firms fail because they underestimate the changes brought by customer expectations, new players and increasing pressure on operational excellence (Figure 2).

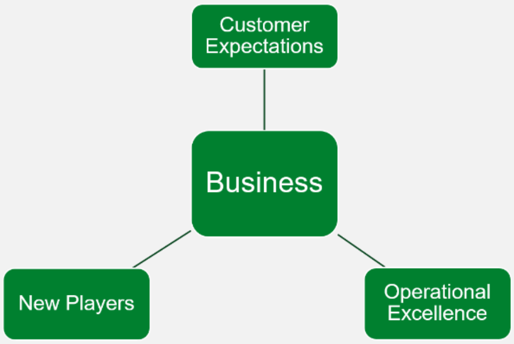

FIGURE 2: the factors influencing the business environment in the financial industry

Customer expectations have undoubtedly changed over the past few years. Most participants of the study agree that the financial sector needs to reinvent itself to satisfy the changing needs of next generation customers. Companies like Uber, Spotify and Amazon have set new standards by providing seamless, personalized and customer-friendly experiences to their customers. Nowadays, customers are benchmarking against their last best customer experience. This means, customers are expecting the same customer experience for financial services, as for products/services from other industries. Since established financial firms can lag behind these developments, successful new players can acquire their customers by providing better customer experience and greater convenience at a lower price.

New Players such as FinTechs and TechFins are entering the market. By using technology in new and innovative ways, a rising numbers of new players enjoy immense and fast-paced growth, and they redefine how businesses are conducted. Therefore, the pressure on existing players in the market is increasing. Established financial institutions are forced to react faster than they are used to and speed to market becomes a main differentiator. In other words, the dominant logic by which a company is aligned today can no longer rest on current competitive advantages alone but must refer to the adaptive capabilities of the organization to prepare for the future.

Operational Excellence is key for running financial firms in a highly regulated field, while competition is increasing. Therefore, financial firms are facing efficiency and cost pressure to keep up with the market. New market dynamics force financial firms to implement technology that can make processes more efficient by assuring the same or even better quality. Many financial firms are moving into that direction but since financial operations are sophisticated and different regulations must be followed, the implementation is in the reality is more difficult than one might imagine. Therefore, the right mindset and know-how among the workforce is needed to overcome the challenges in operational excellence.

NEW TECHNOLOGY AS CATALYST FOR CHANGE

New technologies are catalysts for change in the financial industry. The industry has seen drastic technology-led changes over the past few years, particularly, since customer experiences are moving towards digital interactions. Three major needs emerge with technology for financial firms:

- Need to close the gap between customer expectations and product/service offering
- Need for making internal processes faster and more efficient- cutting the complexity of IT legacy
- Need of offering new products and services

Each technology is affecting the financial industry in a multitude of ways and can positively affect business growth or help reducing operational costs.

What follows. is a short summary of technologies that impact the dynamics in the financial industry (Figure 3).

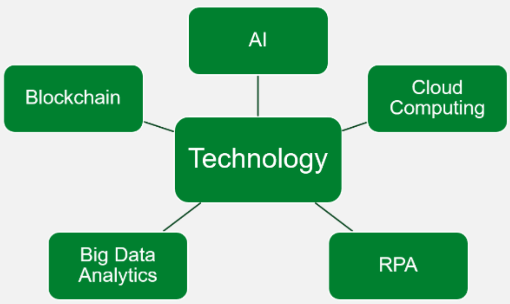

Figure 3: emerging technologies in the financial industry

Artificial intelligence (AI) can be a powerful technology for complex processes. Given the right data, AI can provide higher quality, execution power and speed up processes. Financial firms are already using AI to automate flow processes. For example, the underwriting of risks is already often automated by AI. Another great potential use case are intelligent applications that augment human intelligence, thereby helping frontend-employees make smarter suggestions to their clients.

Cloud computing can help firms to ease their processes by simplifying their application landscape. It is often seen as one way of providing more agility at lower cost by removing on-site IT legacy systems. The cloud is not the future or an emerging trend anymore: it is the present and a critical tool for financial institutions to stay competitive in today's fast-paced environment. Cloud computing is often experienced as the foundation to successfully deploy innovative technologies.

Robotic process automation (RPA) can help to significantly increase speed to market. Firms in the financial industry are dealing with many repetitive tasks and processes. Those tasks and processes have been executed by humans so far, leading to slow handling and prone to data quality issues. In a world where customers expect fast and fully convenient services, RPA can have a big impact on accelerating backend processes and cut costs at the same time. This makes RPA one of the fastest and widely adopted technologies in the financial industry.

Blockchain is gaining more and more interest in the financial sector. The technology is seen as the most secure data center. In an era of cyber-crime and increasing regulatory requirements, a highly fraud-resistant system for protecting and authenticating almost any kind of financial transaction could have a major impact on the financial services industry. The technology is also useful to simplify legacy and make financial service industry infrastructure less expensive by removing the dedicated confirming authenticity.

Big data analytics is a widely used method to serve customers in a better way by providing personalized offers. It is also successfully applied to predict revenue growth and profitability. Furthermore, it can also be used for transformative processes. For example, workforce planning can be simulated by using big data analytics.

THE WORKFORCE NEEDS TO EVOLVE

The adoption of new technologies requires a transformation of the workforce. The participants in the study make the same observation: the current status quo of skill-sets in the financial industry need to evolve for future innovation and the adoption of new technologies. Employers are increasingly seeking workers with new skills to retain competitiveness and expand their workforce's productivity. Some workers are experiencing rapidly expanding opportunities in a variety of new and emerging job roles, while others are experiencing a declining outlook in a range of job roles traditionally considered a lifetime career. These changes will require workers to acquire new skill-sets.

According to the World Economic Forum's Report, 75 million jobs are expected to be displaced by 2022 in 20 major economies. At the same time, however, technological advances and new ways of working could create 133 million jobs. [3] In Switzerland, the demand is likely to rise for technological, social and emotional skills while the demand for manual and basic cognitive skills will decline[4]. Particularly, the need for technological skills will increase significantly. Switzerland's higher education institutes only produce around 3'000 technology graduates a year the study finds. This means that the Swiss education system produces less than half of the estimated number of graduates needed with advanced technological and IT-skills. Hence, companies will need to re-consider their role and responsibility of educating and re-educating their workforce. The need to foster development of technology skills is therefore a key prerequisite for exploiting the potential of new technologies.

[3] WEF, Future of Jobs Report (2018)

[4] MGI, Skill Shift Automation and the Future of the Workforce (2018)

Successful Transformation: Key Findings

The study has identified 6 key topics related to education and re-education of the workforce and to embrace successful transformation:

Customer experience

Customer experience is the interface between organization and the customer. Today, customers have full transparency, low switching costs and multiple offerings for financial services. Hence, customers switch quickly between providers if they are not satisfied with the customer experience.

Digital workforce enablement

In a world where every interaction becomes digital, the workforce of an organization needs to understand how to generate value with strategic and innovative use of new technologies. Only with digital workforce enablement, an organization can create meaningful digital interactions with its customers.

Incubation and innovation

Incubation and innovation capabilities are necessary to live up to the new standards of competing through exceptional customer experiences. The financial industry has historically been very stable and somewhat resistant to change. However, changing pace and dynamic of the environment create necessity for financial firms to have adequate incubation and innovation capabilities.

Agility and agile culture

Agility and agile culture are the foundation for innovation in a fast-paced environment. Agility means moving away from the traditional hierarchies and rigid structures to a more dynamic and team-led organization. In other words, it removes the effect of bottlenecks by giving end-to-end responsibility to employees and teams. Financial firms need agile culture to be capable of reacting more effectively to uncertainty and to dynamic market changes.

Simplification of the application landscape

The simplification of the application landscape can help financial firms to increase speed to market. Over the years, financial firms embedded many applications in their existing IT landscape which led to slowness and inefficiencies. Financial firms need to simplify the application landscape to effectively compete.

Automation and efficiency programs

Financial firms are under constant cost pressure due to changing regulations and competition. Automation and efficiency programs are an effective method to reduce costs and enable operational excellence. In this regard, new technologies can play a vital role. However, this means also that jobs are affected since technology can automate processes. Financial firms face the challenge of balancing automation and efficiency programs and the effect on the workforce.

KEY FINDINGS OF THE STUDY

Customer experience

- Consumption patterns of financial products and services are changing.
- Commoditization and transparency make it more difficult to differentiate one's own brand or product.
- "Every change in the backend must bring some benefit at the frontend" (i.e., customer interface).
- The focus is shifting from company processes to customer processes and, consequently, there is a need to work with a network of partners; additionally, the disruptive potential of platforms.
- Human factor and trust remain the most important assets of financial firms.

Customer experience is a key driver for change. Customer expectations have changed substantially in the financial industry over the past few years. Consumer decision-making practices have changed because consumers have full transparency along with low switching costs. Furthermore, the customers' world is moving towards digital interactions. Thus, the complexity of service offerings is increasing. For example, in the past, when a person turned 18 and started driving a car, she or he would naturally require a car insurance. In recent times, mobility behaviors have changed significantly so that an insurer can't easily predict customer demands. Today, people are combining different means of transport and demanding mobility experiences. So how can an insurer understand what the customer exactly wants and offer tailored services?

Furthermore, when certain financial services become a commodity (e.g., payment), it becomes increasingly difficult to differentiate one's own brand. This implies that the competitive advantage of having a strong trustworthy brand is not enough, and new FinTechs and TechFins can easily enter the market and win over customers by providing better customer experiences. However, if a trustworthy brand can be combined with the capability to provide good customer experience than new players have greater barriers to enter the market.

Because of the degree of transparency and lower switching costs for customers, customer relationships become less sticky. Therefore, financial firms are facing the challenge of having to provide exceptional experiences, as in other industries, on an organizational level. Customers will switch brands quickly when they can enjoy a better experience somewhere else. However, based on common opinion among the interviewees, trust and the human element still play a significant role for customers.

With these requirements, the right conclusions must be drawn in the change process. It is not just a matter of digitizing processes; it is about making changes in the backend that bring some benefit in the frontend. That is why many financial firms are facing a new level of complexity in their transformation journey.

In this regard, moving from company processes to customer processes requires the ability of a financial firm to work with network partners and participate in ecosystems. However, the ability relates to the requirements to (1) enable a digital workforce, (2) embrace agile way of working and (3) ability to incubate and innovate new ideas and solutions.

Digital workforce enablement

- Firms provide educational programs for basic technology training, (e.g., AI, blockchain, cloud, etc.).
- Firms promote self-directed learning with gamification elements (anytime and anywhere).
- Firms offer and enforce self-assessments and coaching related to personal skills or career development.
- Firms provide experience-based learning opportunities (e.g., internal mobility programs and virtual rooms and VR).
- The role of the employer is shifting towards including the provision of opportunities for learning (e.g., courses, assignments, funding, time).
- The role of the employee is shifting towards being self-driven, with ownership and responsibility for learning.

A major objective of successful transformation programs is the enablement of a digital workforce that meet customer expectations both today and in the future. Since customers are moving more and more to a digital world an exceptional customer experience becomes vital to survival, financial firms need to take the opportunity and deploy technology innovatively as a key lever of staying competitive. Therefore, training the workforce is a key enabler for using novel technologies.

For example, how can a banker sell e-banking to the customers when the banker has little knowledge of the advantages of e-banking?

The workforce in the financial industry is characterized by specialization and process-oriented thinking. However, since the demand is likely to rise for technological, social, and emotional skills, it requires a major shift in mindsets.

Most of the participants in the interview study agreed that 90% of the workforce need technology knowledge and that it will be indispensable in the future.

Another study[5] suggests that 69% of workers would like their employer to take care of developing training opportunities and 61% of workers see themselves as responsible for acquiring new skills. This study underlines these findings and is congruent with the practices we observed. Most of the financial firms do not impose training and education on their workforce. Many follow the approach of providing the resources and motivating their workforce to engage in self-education.

The financial firms in the study choose self-directed learning approaches because forced trainings only conditionally educate people. This should also change the mindset of the employees, so that they are constantly developing themselves and so that even with future unforeseeable changes the employees have the right approach to master the challenges. Hence, the challenge arises of finding a way to implement self-directed learning within an organization.

One way is to provide educational programs for basic technology training. One company in the study goes one step further and uses gamification elements and incentivizes people to engage in self-directed learning opportunities.

Self-assessment can be another way to incentivize people and to create momentum for change.

The interviewed leaders reported that their firms offer self-assessment programs, on a voluntary, and sometimes mandatory basis, to show that future job roles are changing and to sensitize the workforce towards self-directed learning.

A company from the study uses experience-based learning where the possibilities of the future are shown very closely, for example by using VR rooms.

Another company offers mobility programs in which other positions can be filled internally, if an employee completes the necessary self-learning modules. Thus, the company offers concrete value and benefits that shall motivate employees to develop their skills and careers.

Generally, the changing roles of employers and employees can be observed. In concrete terms, the freedom and responsibility to prepare for the future are being transferred to employees. Therefore, organizations desire employees who are willing to change constantly. With these changing roles, companies aim to retain employees who are willing to learn and adapt in order to fill new and emerging jobs.

The companies that participated in the study understand that creating a mindset of self-directed and constant learning is among the workforce is necessary to succeed in the unpredictable future.

5 Adecco Group and BCG, Future-Proofing the Workforce (2019)

Success story: digital workforce enablement at HCL

HCL identified people, processes and technology as the three pillars of organizational transformation. HCL understood that the success of change in processes or technology is relatively easy to measure, behavioral aspects are more difficult to quantify. The technical skills are easy to categorize and can be evaluated through industry tools. The mapping of behavioral competencies is identified as the major challenge and that's where HCL has found the Dreyfus model to be useful. HCL makes use of several techniques to evaluate, onboard and upskill their engineers by evaluating them on the three skills technology, engineering and behavior. HCL evaluates behavioral skills by getting engineers to participate in hackathons and through the constant evaluation of their ability to work in a team effectively.

HCL uses a four-step approach for digital talent development at scale

1. Skill-based assessment through Kalibre, HCL's flagship assessment framework.

2.Training curriculum curation to bridge the gap post skill-based assessment, HCL provides digital learning path and curriculum for individuals or collaboration with universities to design the curriculum. Individuals are also encouraged to participate in mentoring groups led by subject matter experts.

3.Training delivery which involves training execution and post training evaluation, certification and recognitions.

4.Hackathons which serve as final level evaluation of the technical as well as soft skills. HCL has conducted numerous hackathons till date for global Dutch and German multinational investment bank and financial services organization with industry-specific use cases for real-time evaluation by customers.

Incubation and innovation

- Firms use internal innovation funnel systems to promote corporate entrepreneurship and to foster business model innovation.
- Firms invest in spin-offs and startups to nurture marketable technology advancements at arm's length.
- Firms provide international incubation programs with on-site facetime of teams to (i) generate innovative ideas, (ii) foster a culture of innovation, and (iii) build horizontal connections within the organization.
- MVP-teams liaise with start-ups to integrate and scale ideas into the corporate environment.
- Firms participate in innovation labs, which involves reverse scouting wherein startups introduce themselves to firms.
- Firms build internal labs for specific areas of innovation.

Incubation and innovation capabilities are necessary to depart from doing business-as-usual and live up to the new standards of competing through exceptional customer experiences. The financial industry has historically been very stable and somewhat resistant to change. Most firms have overcome many crises without the need to alter traditional business models and skillsets. However, changing customer expectations and competition with upcoming FinTechs and TechFins have made the market more dynamic. Consequently, financial firms now need to innovate faster, and time-to-market has become essential. In this regard, there are two kinds of innovation instruments utilized by organizations who participated in the study: internal innovation and external innovation. Internal innovation refers to all innovation approaches which are developed in a self-contained company environment. External innovation refers to all measures to innovate with external resources and players outside the organizational boundaries, avoiding the "not invented here" syndrome. However, both approaches require the organization to have the respective capabilities to incubate and innovate.

Today, financial firms embrace internal innovation by establishing innovation funnel systems and by promoting corporate entrepreneurship and business model innovation. The goal is to enable people in the organization who are close to processes and customers to come up with ideas for change. A global insurance firm, as another example of internal innovation, has an international incubation program in which people can apply and be selected to do on-site facetime sessions to generate and implement ideas.

One method for external innovation is to invest in spin-offs and startups. This method allows firms to nurture marketable technological advancements at arm's length. Additionally, financial firms can take part in innovation labs, which can function as outsourced F&E labs. Compared to other industries, F&E has had little meaning in the financial industry so far. However, the market dynamics have changed so drastically that financial firms are taking more agile and evolutionary approaches (e.g., build-test-learn), which, most likely requires some time for teams to adapt of novel ways of doing innovation.

The changing landscape of the financial industry also provides opportunities for financial firms to build long-term capabilities and to incubate and innovate internally as well as externally. Consequently, organizations need the right innovation culture to move from a closed entity to one that plays in open ecosystems. This will allow financial firms to provide new and meaningful customer experiences.

Success story: innovation and incubation at HCL

HCL has a culture of "ideapreneurship" which is based on Employee First philosophy. It enables employees to innovate and collaborate with each other and with customers to seed, nurture and harvest ideas. This innovation and collaboration culture has given rise to a number of key enablers and tools to bring about a business impact. One such enabler is value portal.

Value Portal is a platform designed to encourage, facilitate, manage, document & share customer focused innovations. The platform not only helps realizing innovative ideas that are aligned to customer needs, but also builds a culture of innovation in the work environment.

By sharing ideas among the organization, the employees are encouraged to bring their own ideas to the forefront. The Value Portal serves also as common platform for HCL's employees and customers to come together and be part of the transparent evaluation of new ideas. The focus of the platform is to capture feasible ideas. Therefore, details in terms of investment, time, resources and plan for implementation are also captured in the platform along with tangible (quantified) and intangible benefits. The customer friendly ideas are available in a central repository to enable best practice sharing between teams. More than 30,000+ ideas were shared since its implementation in 2007. One example was an additional feature developed for business users of a multinational insurance company. The insurance firm uses multiple robots to track different business processes and manage exceptions.

The platform helped a team to come up with the idea to create a lightweight web-based application which collates real time status of robot inferences and report it in an integrated format. This provided a single view of realized benefits, business exceptions and pending work (real-time) for the users thereby saving the customer approx. $5Mn. Another idea generated from the platform was using a BI tool to evaluate the advertising purchase (regions/Zip Codes) decisions for a bank based

on demographics. This led to better conversion and delivered additional revenue of $9.8Mn for the bank.

Agility and agile culture

- Agility leads to increasing organizational flexibility.
- Agility leads to increasing speed to market and faster adaptation to market needs.
- Firms are introducing a performance system in which team members can award others for their contributions.
- Firms are creating dedicated agile teams to work with startups and co-create MVPs.
- Firms are crowdsourcing projects to achieve results in high quality, speed, access talent, use competitive spirit, generate more options and solutions.
- The hiring of people from other industries serves as a catalyst for transformation.
- Implementing agility in a meaningful and credible way is primarily a cultural change that challenges existing structures and processes.

Agility and agile culture are the foundation for innovation in a fast-paced environment. Agility means moving away from the traditional hierarchies and rigid structures to a more dynamic and team-led organization. In other words, it removes the effect of bottlenecks by giving end-to-end responsibility to employees and teams. An agile culture is capable of reacting more effectively to uncertainty and to dynamic business market changes. There is a wide consensus among study participants that agility and agile culture could be a key differentiator in the future for financial firms.

The challenge lies in the fact that the workforce in the financial industry is usually process-oriented, and many experts work on isolated tasks. Furthermore, the common understanding within the financial industry is that employees are rewarded based on individual performance. The participants in the interview study pointed out that the bonus systems in the financial industry are not suitable for agile culture. To tackle this challenge, companies use different practices. One insurance firm uses a performance system where team members can independently award other team members for their contributions. Another company uses the OKR (Objectives and Key Results) method, wherein 50% of goals are set top down and 50% are set bottom up by the team members with respective key results for measurement. Creating dedicated agile teams to work with startups and co-create ideas and MVPs is also a method of fostering an agility mindset and culture that financial firms utilize. A very effective catalyst for change is hiring talents who bring in new mindsets and skills into the organization. One company reported it also uses crowdsourcing techniques on projects to achieve high-quality results, increase speed and access the such talent.

Even though companies use different approaches, they have common goals. Financial firms aim to increase organizational flexibility and thus achieve faster speed to market, as well as faster adaptation to market needs. Moreover, organizations are changing their methods from an inside-out to an outside-in market approach in which the customer's voice is taken more into account in development processes. However, the study participants raised concerns about how to measure agility and making appropriate decisions.

Simplification of the application landscape

- Simplification of the application landscape is viewed as an opportunity to increase speed to market and to create new IT and offerings by configuring microservices.
- One company created a fund for the business-case-driven simplification and decommissioning of applications where cases need to be pitched with a business case to the CFO (amongst others).
- The cloud provides is generally viewed as great opportunity for simplifying the application landscape.

Simplification of the application landscape has been desired by executives in the financial industry for many years, but it is now indispensable for achieving agility and agile culture. According to the interviewees of this study, a key problem is that financial firms have embedded applications into their existing application landscape without enough strategic consideration and thereby have inflated their application landscape. Consequently, financial firms carry a complex burden of a legacy mountain that has been built over decades. New players, on the contrary, have the advantage of building their application landscape on a green field in a customer-oriented way. This allows them to outperform existing companies by providing exceptional customer experience at lower costs. Thus, financial firms need to simplify their application landscape to reduce costs, increase speed to market and to keep up with competition.

One insurance company in the study has chosen a venture capital approach to simplify their IT legacy. The firm created a fund for decommissioning and simplification cases. Business units pitch business cases for simplification and decommissioning projects to executives and receive money for execution after approval. According to the industry expert, the company managed to remove half of the applications with this approach and the company generated half of the invested money back within two years. A global bank, which participated in the study, is using a cloud strategy to simplify its application landscape. The bank uses cloud transformation as a strategic approach to simplify their application landscape by breaking down the current on-site application landscape into microservices, removing unnecessary applications and moving the remaining applications to the cloud.

Automation and efficiency programs

- Automation helps to increase speed to market through the acceleration of business processes.
- Development and evaluation of RPA potential use case portfolio by integrating a broad range of domain and process experts into the ideation process (showcasing RPA).
- One firm has implemented a simulation tool to assess the ability to automate steps in business processes and the impact of automation on affected jobs and roles.
- There is wide consensus that many simple and repetitive tasks (and jobs) will be automated in the future.

The study participants emphasized that there is the need for operational excellence to keep up with competition. A company that is too slow risks losing clients to its competitors. Therefore, many financial service processes are shifting to flow business. Flow business means that the whole process is executed with technology without human interception. For example, case underwriting can be fully automated by technology. According to the participants of the study, at least 50–60% of financial service processes are expected to be automated in the future. This will have a massive impact on jobs. It is challenging for financial firms to understand which jobs should be automated to achieve favorable results and what the impact on the workforce will be. A banking firm that participated in the study chooses a bottom-up approach to implement automation projects. The company provides educational sessions about RPA to its employees, who are then motivated to make suggestions for automatable processes for their working environment. An insurance firm is using a simulation tool that helps making predictions. The tool assesses which jobs could potentially be automated and what the impact on the affected part of the workforce might be.

The participants share the overall opinion to put forth by several reports: automation will have a huge impact on the financial industry. The challenge lies in determining how to deal with the effects caused by automation on the workforce of an organization. The companies that participated in the study care about their workforce and are uncertain about the long-term effects of automation on their workforce and on an organizational level. Due to this uncertainty, some financial firms have not adopted automation programs as fast as other firms in other industries.

CONCLUSIONS

Changing customer needs are the key driver of transformation.

Financial firms are targeting broader technology aptitude among the workforce by fostering self-assessment and self-directed learning opportunities.

Financial firms are strategically pursuing the development of long-term capabilities to incubate and innovate.

Financial firms are moving from waterfall organizations to agile ways of working to ensure organizational flexibility, to increase speed to market, and to enable bottom-up innovations.

Simplification of the application landscape is viewed as an opportunity to foster organizational flexibility and increase speed to market.

There is wide consensus that many simple and repetitive tasks (and jobs) will be automated in the financial industry, which underlines the importance of strategic workforce planning.

Education and Re-Education of the Workforce

-Recommendations

You can't foresee the future, but you can prepare your workforce

When it comes to transformation and reskilling, no one in the financial industry can foresee what the industry will look like in the coming years. However, even though there is no gold standard for reskilling, this does not mean financial firms should do nothing. In fact, they need to deliberately develop a portfolio of education and re-education measures and experiment with different techniques that work best for the whole organization. Financial firms are on the right path but need to take their measures to the next level to achieve significant results.

Move from awareness to urgency

Consistently across the study, we see that awareness is increasing for transformation, education and re-education of the workforce. However, the urgency to act will most likely increase in the future. For successful education and re-education, employers will have to drive change on organizational level, while individuals are becoming increasingly responsible for acquiring new skills at all ages and stages in their careers. This requires each individual worker in the financial industry to put this responsibility into concrete action. Particularly, those in leadership roles can take on an exemplary function by reskilling themselves and communicating their experiences to the organization.

Free up time and set incentives for education and re-education

The research shows that financial firms offer various training and education opportunities but do not free up time for their employees to take advantage of them. This approach is not effective in the long run because some employees do not get the chance to use the offerings. Furthermore, to build the required future skill set, companies should think broadly about potential training candidates and provide effective support to those in need of significant skilling.

Your education and re-education measures will define the success of your transformation

As revealed above, the complex interplay between business, technology and workforce makes it difficult for financial firms to transform. However, the transformation of the workforce is a key factor for the transformation success of an entire organization. A financial firm can only react properly if the workforce is ready. The report demonstrates that employees in the financial industry do not always possess the necessary skills to master the long-term challenges ahead. Only if mindsets are changed and successful reskilling occurs will organizations be ready to cope with change and uncertainty in the future.

Want to do research in collaboration with us? Let’s connect!

Prof. Dr. Benjamin van Giffen

Assistant Professor for Information Management and Head of Research Group Management of Artificial Intelligence

Mail: benjamin.vangiffen@unisg.ch

Prof. Dr. Walter Brenner

Director & Professor for Information Management

Mail: walter.brenner@unisg.ch

Nithujan Prathapan

Research Associate

Mail: nithujan.prathapan@student.unisg.ch