

Innovation for the 21st Century Banking Industry

Francisco González

Chairman of BBVA

This book, *Innovation: Perspectives for the 21st Century*, is the third in a series of annual publications by the BBVA Group. The motivation behind these publications is to publish expert knowledge on the key issues shaping the future course of the 21st century and relay this knowledge to society. To this end, we seek out leading researchers and creative minds from around the world and ask them to address rigorously and objectively the latest developments in knowledge and the ongoing debates on research and artistic creation in their own fields, using a language and approach that non-specialised readers can understand.

The first book in the series, *Frontiers of Knowledge*, was published in connection with the institution of the Frontiers of Knowledge Awards granted by the BBVA Foundation. It focused on recent breakthroughs and key challenges in each of the eight award categories: biomedicine; ecology and conservation biology; climate change; information and communication technologies; economics, finance and business management; development cooperation; and the contemporary arts.

The second book offered a comprehensive overview of the complex phenomenon of

globalisation, which today deeply affects every aspect of people's lives.

In order to give the collection a sense of continuity, we have chosen innovation as the central theme of this third book. It was chosen for two main reasons: the first was the decisive importance of innovation as the most powerful tool for stimulating economic growth and improving human standards of living in the long term. This has been the case throughout history, but in these modern times, when science and technology are advancing at a mind-boggling speed, the possibilities for innovation are truly infinite. Moreover, the great challenges facing the human race today—inequality and poverty, education and health care, climate change and the environment—have made innovation more necessary than ever. Our economy and our society require massive doses of innovation in order to make a widespread improvement in the standards of living of nearly 7 billion people (the number continues to increase) compatible with the preservation of the natural environment for future generations.

The second reason for choosing this theme is that it is consistent with BBVA's corporate culture. Our group's commitment

to the creation and dissemination of knowledge ties in directly with the vision that guides every aspect of our activity: “BBVA, working towards a better future for people”. People are paramount in our work, and the work we do for people is supported by two other pillars of our culture and strategy: principles and innovation.

BBVA’s principles can be summed up in the belief that ethics are not only desirable but also profitable. Acting in accordance with strong values of honesty, integrity and transparency is essential for establishing a close and lasting relationship of trust with all our stakeholders: our shareholders, suppliers, regulators and, above all, our employees and our customers.

This ethical commitment extends to all the societies in which we operate and to society as a whole because we believe that economic development and social stability are the keys to ensuring BBVA’s continuous, profitable growth. For this reason, BBVA is actively involved in a variety of social projects, with a particular focus on promoting education and knowledge. This is the context that has inspired the publication of these books as well as a host of other initiatives, such as the Frontiers of Knowledge Awards and the different activities organised by the BBVA Foundation, in addition to ambitious educational programmes launched by the bank in every country in which we have a presence.

However, although these actions are undeniably important, at BBVA we believe we make our greatest contribution to improving people’s lives through diligently performing our daily activity. The banking industry, and the financial industry in general, carry out tasks essential to people’s everyday lives and to economic development and social stability. BBVA strives to offer its customers a wider and better range of solutions each day, and

to make these solutions available to more and more people. Innovation is a vital tool; with it, our daily efforts can achieve the best results, and BBVA can become, as we want it to be, the best universal bank worldwide—in other words, the bank that offers the best and most varied solutions for people and for companies.

I will return to this later, but first I would like to say that the undertaking of publishing these books over the past three years has been an extremely gratifying experience. Each year we have been privileged to work with some of the world’s leading experts on truly fascinating subjects. The opportunity to interact with them and their ideas has enriched us all.

This year, again, I am very proud of the calibre of the authors who kindly agreed to participate in our project. The book boasts texts written by a select group of the world’s best and most prestigious experts in their respective fields. Some are repeating the experience—like Professor Rosenberg, who contributed a magnificent article on globalisation to last year’s publication—which constituted a great honour and show of support for our project. Others have collaborated with BBVA on different innovation projects, or represent institutions with which we have signed agreements or established partnerships in this field. And all have made valuable contributions that give us a glimpse of the “state-of-the-art” in innovation.¹

I wish to express my gratitude and that of the entire BBVA Group to all the authors for participating in this book entitled *Innovation: Perspectives for the 21st Century*. On reading it, I trust that all of you will find a rich, varied and thought-provoking discussion of innovation—a complex phenomenon of paramount importance for the society and economy of the 21st century.

¹ Here I would like to offer a special tribute to the memory of Professor Chris Freeman of the University of Sussex, one of the pre-eminent contemporary experts on economic cycles and the economics of innovation. His untimely passing this summer precluded the possibility of recruiting him for this project, in which a number of his colleagues, collaborators and disciples have participated.

AN OPEN, PLURALISTIC VIEW OF INNOVATION

Innovation is extremely hard to define. Schumpeter, the great economist who positioned innovation at the centre of the economic debate, made a distinction between invention, defined as the manifestation of a new idea or a previously unknown fact, and innovation, the ability to successfully apply that idea in practice (Schumpeter, 1934). Thus, innovation can be very loosely defined as “a change in the thought process for doing something, or the useful application of new inventions or discoveries” (McKeown, 2008).

Working on the premise of these general ideas, innovation has been analysed in countless contexts and from very different perspectives—always associated with “positive change”—in such disparate fields as technology, economics, business, sociology, the arts or the multiple branches of engineering.

Schumpeter supplied us with a definition of economic innovation which lists the different forms that innovation can take:

1. the introduction of a new good or service;
2. the introduction of a new method of production;
3. the opening of a new market;
4. the conquest of a new supply source of raw materials or semi-manufactured goods;
5. the implementation of a new organisation in any industry.

The importance of innovation in the field of economics has even given rise to a discipline known as Neo-Schumpeterian Economics, which views all economic development as the result of innovation (see, for example, Freeman, 1982).

Every innovation is the result of a process in which the idea for a possible practical application of an invention is first posited and subsequently developed until it is ready

to be introduced into the market. This is why economic and business texts dealing with innovation are just as concerned with the “sources of innovation” and the processes that encourage the generation of potentially useful ideas as they are with the best mechanisms, structures or incentives for transforming those ideas into goods and services that can effectively create value on the market.

The connection between science, technology and innovation, the relationship between academic research and companies, public policy and the role of the market, government and corporate structures, business management in the area of innovation—all of these subjects have been the focus of special attention in the literature on innovation. This diversity of themes and their complexity explain both the importance and the difficulty of developing a Theory of Innovation (see Nelson and Winter, 1977).

A wide range of scholarly approaches to the concept of innovation is documented in Fagerberg (2004), which I recommend to interested readers as a helpful reference for becoming familiar with the prolific and varied bibliography on innovation.

Given the diversity of approaches, aspects and ramifications of innovation and its practical applications, in this book we have chosen to offer a very wide spectrum of articles addressing the most relevant aspects of innovation, all written by authors at the very top of their respective fields.

The first segment of essays, which provide crucial insights for understanding innovation, focuses on its deepest roots. Sandy Pentland traces the roots of creativity—and, by extension, innovation—back to their source in biology, and shows how communication and interaction among the members of each species, including (of course) humans, are essential for development. Sander van der

Leeuw points out that the cognitive abilities of the human brain do not seem to have changed in the last 50,000 years; however, thanks to cultural elements (in other words, the experience of learning to exploit those abilities to the fullest), combined with advances in information and communications, the human species still has plenty of room for improvement in terms of managing its natural environment, and that improvement is made possible by innovation.

The second segment of essays focuses on the institutional aspects of innovation. Nathan Rosenberg discusses the complex relationship between science and technology. The traditional view is that science “leads” and technology “follows”, but Professor Rosenberg points out that technology is much more capable of “explaining” scientific progress than we have been led to believe. Hiroyuki Itami underscores the role that organisations (corporate, government, or non-profit) play in knowledge accumulation mechanisms, which are vital for innovation, while Alfonso Gambardella focuses on how market mechanisms can encourage innovation—mechanisms that are primarily fuelled by the utilisation of that accumulated knowledge.

Francisco Louça, on the other hand, demonstrates the importance of the intricate network of cultural values, social interactions and institutions of each society for understanding innovation processes, and discusses how the match or mismatch between socio-institutional systems and the degree of techno-economic development in each period determine the long or Kondratiev waves of economic growth and recession. Based on this reasoning, the current crisis can be chalked up to the inability of economic structures, institutions, regulations and social values to keep pace with the technological revolution we are experiencing.

David Mowery’s essay offers an analysis of the US National Innovation System over more than a century and concludes that its results have largely depended on the decisions made by private companies. For this reason, public innovation policies should remain consistent over time and seek the approval and support of the private sector.

Using data compiled by European economists, Edward Lorenz and Bengt-Åke Lundvall empirically prove that the structural traits of economies, like education systems and labour market structures, have a significant impact on creativity, and therefore on innovation.

The third section of essays examines innovation from a “micro” perspective, exploring how innovations are generated and what plans and mechanisms should be introduced in organisations to generate and disseminate ideas and, above all, to turn those ideas into innovative goods and services on the market.

Alice Lam analyses the organisational aspects of the innovation process and points out the need to cultivate the learning and knowledge-building capacity of human resources, but also to design flexible organisations that can adapt to new technologies and processes.

In a revision of the conventional “producer-centred” approach to innovation analysis, Eric von Hippel reveals how users have become an important source of innovation thanks to advances in computer science and improved connectivity. Consequently, it is essential for companies to maintain a constant dialogue with users and devise mechanisms for working with them and making the most of their abilities.

Frank Moss describes the key cultural aspects of the MIT Media Lab’s “research style”, one of which is the creation of an environment of creative freedom that

encourages people to ask bold questions, where failure is perfectly acceptable and where learning is an integral part of the creative process (learning by doing).

The essay written by Curtis Carlson illustrates the “best practices” for innovation developed at the Stanford Research Institute, designed to improve the odds of success for the innovative efforts of organisations.

Harry West focuses on “radical innovation” and outlines the principal elements of Continuum’s process for designing and developing this type of innovation, which is the hardest to standardise but has a much greater impact.

Pascal Soboll offers a complementary perspective—that of the consulting firm Ideo—on how to create an innovative culture in organisations, in such a way that innovation is a priority for all departments rather than the exclusive concern of a small group of “experts”.

This third section concludes with Joaquim Vilá, who highlights the pivotal role that senior executives must play in implementing the changes required for an organisation to achieve a robust innovative culture, and enumerates the fundamental cultural factors that these executives must embrace and preach by example.

The fourth and final segment is dedicated to the application and impact—present and/or future—of innovation in a number of relevant areas, sectors or activities.

Manuel Mira Godinho shows us how innovation is largely responsible for the reduction of extreme poverty in the world over the past several decades, and how it can continue to eradicate this problem in the future. For this to happen, developing nations must acquire policies and tools that will allow them to obtain know-how, compete for R&D funding, and join the global institutional framework, including

the necessary policies for handling environmental problems.

As one might expect of a book published by a financial institution, this volume pays special attention to innovation in the service industry, and more specifically in the world of finance. Ian Miles points out that conventional academic publications on innovation have tended to focus on manufacturing industries; yet services represent a very large (and constantly growing) chunk of the economy, and innovation in this sector presents distinctive traits and demands. Developing cross-disciplinary teams is a necessity in the service industry, because innovations in this field usually involve the combination of multiple goods and services, requiring knowledge of technologies, institutions, regulations and social habits as well as of specific types of customers and customer interfaces.

Robert Litan reviews the history of financial innovation in recent decades and concludes that in many cases it has had a positive effect, similar to that achieved by innovation in any other industry, generating goods and services that are better, cheaper and delivered to the buyers more quickly. It is only when financial innovation focuses on the search for mechanisms to increase leveraging to dangerous levels that it has a negative impact, as the recent crisis clearly proves. Therefore, the competent authorities must introduce policies that will prevent the proliferation of “destructive” financial innovations without stifling true, positive financial innovation.

Xavier Vives picks up where Litan leaves off, discussing the role that financial innovation has played in the crisis and reminding us that every major technological change (the railway or the automobile in their day and the internet in ours) has been accompanied by a speculative bubble. Nevertheless, innovation—

particularly financial innovation—is essential for economic development. Consequently, we must concentrate our efforts on designing appropriate regulations for the development of financial innovations that will bring private incentives into line with general welfare interests.

Edward Rubin views innovation as a fundamental tool for solving the problem of climate change. If we hope to achieve the international goal of stabilising the levels of greenhouse gases in the atmosphere, we will have to apply technologies that are still being developed or have not even been invented on a massive scale. Public policy should focus on providing the proper incentives.

Takanori Shibata addresses innovation in the medical field, discussing the development of robots that can be used as pets and have proven to be therapeutic. Hugh Herr and Ernesto Martínez-Villalpando explain the tremendous potential of technological innovations for improving the quality of life of the 650 million people around the world who live with some kind of physical or mental disability.

Carlo Ratti and Nashid Nabian show how innovation can generate “intelligent” cities that will provide access to useful information in real time and a platform for collaboration among their inhabitants, radically improving their quality as living and working spaces.

Finally, Tod Machover explores the applications of innovation in music through musical “tools” that allow anyone to make music. This technology has great therapeutic potential; however, on a more general level, it also offers a new model of interaction between people and music that is much more direct and creative.

INNOVATION IN THE FINANCIAL INDUSTRY

The financial industry is already caught up in an intense, inevitable process of

transformation, and the driving forces behind it—technological progress and the social changes it is bringing about—are equally intense and inevitable.

We are currently witnessing the most disruptive technological revolution since the advent of the Industrial Revolution two centuries ago. The difference is that only a small portion of the world took part in the technological progress of the 18th and 19th centuries, while today’s revolution is spreading like wildfire across the entire planet. The reason for this is simple: ours is not a revolution of the tangible (production or transport of goods) but of the intangible. It is a revolution of information. The cost of collecting, storing, processing and sending information is falling rapidly. And just as important—or perhaps even more so—is the fact that these new possibilities are within reach of almost everyone on the planet, thanks to the advent of personal computers, the internet and, increasingly, mobile phones.

This phenomenon is changing people’s habits and behaviour in every area of their lives: the workplace, recreational activities, communication and even interpersonal relationships. Although all companies must deal with these changes in their customers’ lifestyles and in the production and distribution processes, nowhere are their effects more drastic than in the service industry, where the information component carries much more weight (see Miles, 2000).

Banks are at the epicentre of this change. Technological evolution and social changes have a deeper and more direct effect on the financial industry than on most other sectors, for its basic raw materials are information and money. And money, in turn, can dematerialise and transform into accounting entries—in other words, into data that can be stored, processed and transmitted in real

time and at costs so low that they are on the verge of disappearing altogether.

It is true that banking has not experienced—up until now—a transformation on a par with that undergone by other information-based sectors, such as the music industry. This is largely owing to the fact that banking has historically been a highly-regulated industry, subject to close scrutiny and control by public authorities. It is also partly due to the exceptionally benign economic and monetary climate of the past several decades, which fuelled the intense growth of financial activity and permitted a relatively high level of inefficiency in the industry, including the survival of a staggering number of financial institutions around the world—or, to put it another way, a severe excess plant capacity.

However, not only is the transformation of the industry inevitable, but it is also picking up speed with each passing day. The primary reason is that the technological revolution is introducing daily new and different ways of doing things, and increasing the potential for cutting costs, while the number of users who resort to non-traditional banking methods continues to grow.

The second reason is that the current crisis is imposing changes in various directions. Banks are perceived as the “culprits” of the recession, and with good reason, for a large number of institutions made some very serious mistakes and chose to ignore the basic principles of banking: prudence, transparency and even integrity (for a more detailed discussion of this issue, see the essays by Edward Litan and Xavier Vives). As a result of these mistakes, many banks have experienced serious difficulties which caused some to go under and others to go through a complete restructuring, generally funded by government bailouts. The colossal amount of taxpayer resources poured

into to saving banks has severely tarnished the reputation of financial institutions and the entire industry in the eyes of ordinary citizens. Trust is what gives banks their competitive edge, but over the past several years they have lost much of their customers’ trust, and the trust of society in general.

In addition, the crisis has triggered a process of sweeping changes in banking regulations: borrowing limits, higher capital and reserve requirements, the need for major investments to improve risk and compliance systems, etc. All of this boils down to less revenue and more expenditure—in other words, a reduction in the current and future profitability of financial institutions.

In short, banks must respond to the new demands of their customers and of society, and they must face this challenge with a damaged reputation, lower profits and slow growth in the traditional banking business. This situation calls for a radical transformation: banks must dramatically revise the way they interact with their customers and take a qualitative (not quantitative) leap forward in efficiency.

To a degree, these advances in efficiency will be achieved by a drastic consolidation of the banking sector, which has already begun. But the industry’s true transformation will be effected with the widespread and, above all, intelligent use of technology as part of a sustained process of innovation.

In recent decades, banks have been among the most important users of information and communication technologies, which they have adopted with two primary goals in mind: to cut costs and streamline processes to increase profit margins, and to develop channels of communication other than the conventional branch office.

Yet the original technological platforms used by banks were first introduced several decades ago (in the 1960s and 1970s) and,

in most cases, subsequent improvements in functions were developed based on different, more modern technologies, architectures and programs that were later added and/or hooked up to the old system ad hoc.

If it were possible to visualise the complete systems network of an average bank, it would probably resemble nothing so much as a plate of spaghetti: a tangled web of connections linking very different systems that have undergone a long string of changes and partial updates over time.

This situation generates high maintenance costs (for example, it is estimated that banks in the United States devote 80% of their total investment in systems to maintenance and only 20% to new developments). And, most importantly, it quickly becomes untenable given the pace at which new technologies appear and customers' habits and demands change.

Meanwhile, the internet revolution continues to spread (internet users now account for nearly 30% of the world's population). And the uses, capabilities and functions of the internet are proliferating day by day. The internet has become the leading source of information, an indispensable pastime (today Europeans spend more time online than they do watching television), and even a forum for personal relations: over 500 million people around the world now use social networks like Facebook which did not even exist until a few years ago.

With each passing day, the internet is gaining importance as a commercial and advertising space and as a place where people on opposite sides of the globe can work together as a team. The web is also the driving force behind the fragmentation of production chains which facilitates the outsourcing of services. In this field, services offered via cloud computing represent a major breakthrough in terms of universal

access to data storage and processing at very low cost, and will undoubtedly have far-reaching implications.

Internet usage has also received a tremendous boost from advances in mobile phone technology. Thanks to these new devices, nearly 4.5 billion people (almost three-quarters of the human race) are "online" and have almost ubiquitous access to some level of information services, which has a tremendous effect—yet to be quantified—on productivity.

Mobile phones come equipped with increasingly more powerful and varied functions, functions that will gradually be incorporated into other devices that people can use anywhere, anytime (what has been dubbed the "Internet of Things").

All this opens up countless windows of opportunity, not only to cut costs but also, and most importantly, to increase revenue.

In the most technologically advanced countries, the challenge is to offer customers a wider array of information-based products and services—and not just of the financial variety—with a cost so nominal it is close to zero, and to do it in the way that is most efficient, rapid and convenient for users.

Technology also offers unprecedented possibilities for tailoring services to meet the users' needs and demands. To this end, the bank must provide customers with tools that will allow them to participate in the actual process of designing the service they wish to receive.

In developing nations, we find an array of truly historic opportunities: firstly, because the majority of global growth will be concentrated in these countries in the coming decades; and secondly, because only 900 million people in the world are currently bank customers, and there are over 2 billion people—most of whom live in the world's least developed countries—who do not have

access to financial services. This situation exists because, in the conventional model of production and distribution, providing financial services that involve small amounts to a scattered population is not a profitable activity.

However, technology facilitates the introduction of much more efficient models for producing and distributing financial services—for example, through the use of mobile phones. In addition to opening up a huge new market for banks, such a measure would have a tremendously positive effect on the economic development of these countries and facilitate the inclusion of the most disadvantaged collectives.

The technology needed to do all this already exists and is improving every day. A new scenario of competition in the financial industry is taking shape, a stage on which new competitors will soon emerge: companies, many of them internet-based, with high brand awareness and none of the legacies encumbering banks (obsolete systems, costly physical distribution networks, etc.), and with the potential ability to introduce highly efficient models for offering financial services.

The banks that want to compete in this new league will have to undergo a profound transformation, but they do have a few competitive advantages for initiating this change, the most important being the vast amount of information they already possess about their customers. This knowledge must become the foundation for building a new business model, one that is firmly entrenched in technology.

The fundamental tool of this new model will be a much more modern and flexible technological platform capable of absorbing all that information about customers and exploring all possible points of contact with them. In this new model, the existing network

of branch offices must be given a complete overhaul: physical distribution networks are only logical if they can offer the users added value and are perfectly integrated in a physical-virtual platform. This platform should allow customers/users to interact with the bank at any time, through any channel, with no interruptions or time lapses, in order to quickly obtain financial or non-financial solutions at minimal cost that are perfectly suited to their specific needs, and which customers can even help to design if they so wish.

Parallel to this technological revolution, banks must also undergo a sweeping organisational and cultural transformation—a transformation that will allow them to restore their reputation by offering transparency in dealings with customers, speed and flexibility in responding to their demands, and the creation of an innovative culture that allows them to find solutions to the new challenges which technology and social changes will continue to pose.

Only those banks which are capable of undertaking this transformation will be able to participate in the financial industry of the 21st century: an industry that will be much more competitive than in the past, but which will also present tremendous opportunities given the possibility of meeting people's needs much more efficiently and providing universal access to financial services in the world's least developed regions.

BBVA: AN INNOVATIVE PROJECT

At BBVA, long before the current crisis, we have always tried to stay one step ahead of the pack, and we have already started to build this new business model. Our project is upheld by three pillars: principles, people and innovation.

Principles are the cornerstone of our project. At BBVA, our efforts have always

been guided by the premise that ethics are not only desirable but also profitable.

Sustaining a corporate culture of prudence, transparency and integrity at any cost is a difficult, time-consuming task, and in some cases it even means sacrificing short-term profits. But in the medium and long term, it is the only way to ensure a project's sustainability.

Thanks to this culture of principles, BBVA has managed to avoid the pitfalls that many of our competitors have stumbled into in the recent past, and consequently our relative position in the global banking industry has been strengthened.

The number-one priority of our project is people, just as our vision states: "BBVA, working towards a better future for people." We strive to build stable, long-term relationships with our customers, relationships of trust based on strict ethical conduct and an effort to provide them with the best solutions to meet their needs efficiently, conveniently, and at the best price.

And here is where the third pillar of our project comes in: innovation. Creating a truly groundbreaking, "customer-centric", rapid, simple and efficient model of interaction, in which the customer receives the best his bank has to offer, requires constant efforts to innovate in both the organisational and cultural arena and in the technological field. I would like to mention just a few of the initiatives we are working on at present.

If we want to offer customised solutions, the first order of business is to know our customers well. At BBVA, like all banks, we have compiled a huge amount of information about our customers. But turning that data into knowledge that can be used to design products that will meet each customer's unique needs and determine fair prices in accordance with his/her situation means that we must equip ourselves with cutting-

edge technology. At BBVA we are leading the way in the application of data-mining and creating intelligent algorithms that will allow us to anticipate the future demands of our customers at any given time.

At BBVA, we have initiated a profound transformation of our distribution network. We are already the world's most efficient bank, but we continue to work on new branch office configurations that are even more efficient, streamlined and able to provide better service. Another project underway is the design and construction of the best remote channels, equipped with the best and most varied functions, so that customers can interact with BBVA in whatever way is most convenient for them and help us perfect the exact kind of service they prefer. The phone and the computer were followed by the mobile phone, and these will soon be joined by the iPad, television and any other devices to which customers have access.

At BBVA, we are moving towards a distribution model that goes beyond the contemporary concept of multi-channel communication, where the physical office is the heart of the system and the other channels are just useful accessories. We are developing a seamless physical/virtual space where customers can come and go between the branch office and the virtual world as they please and in perfect continuity.

This space will give rise to a new definition of a bank: a company that will offer other non-financial, information-based services which incorporate the users' own contributions and tap the potential of social networks. And all this will be achieved by taking advantage of the growing ubiquity and functionality of mobile phones and the ability of cloud computing to offer cheap universal access to all kinds of information-related services.

In pursuing this goal, BBVA has an important competitive advantage: a cutting-

edge technological platform, a platform that goes far beyond the conventional model of banking systems and is capable of integrating all channels and all sources of information. Thanks to this platform, a customer who accesses the bank by any channel will always find the same BBVA, with the same capacities, and will be able to jump from one channel to another as he/she pleases without a hitch. This platform, which we have been building since 2007, is currently 80% complete and will be fully operational in less than two years.

BBVA has a vision for the industry's future and has been working for years to make it a reality. But it also has a strategy that combines this vision of the future with the current reality and the prospects of each market and each type of customer.

At BBVA we want to leverage the potential of our model in high-growth markets. For this reason, in addition to our strength in Latin America, we are building a solid franchise in the United States (the world's largest market), we have a strong presence in China and other Asian countries, and we are in the process of acquiring significant interests in Turkey. In this way, BBVA combines its strength in developed markets with a growing presence in emerging economies, where most of the global economic growth will be concentrated in the coming decades and where a high percentage of the population still does not have access to financial services—which means that the potential for growth in the financial sector is staggering.

Our highly efficient model, firmly rooted in technology, gives us a significant competitive edge over other banks when it comes to meeting the needs of customers in developed nations (highly sophisticated and with intensive technology usage). But it is also essential for developing simple,

inexpensive models to provide large sectors of the population with access to banking (as we are already doing in Latin America with mobile phones, agents and bank cards) and to operate in huge markets where we do not have a strong physical presence.

In summary, we have already made tangible progress in our transformation process. However, we have also made other “intangible” advances—or, if not strictly intangible, at least difficult to quantify—derived from what we have learned after all these years of constant work, and these are no less important for the future of our institution.

Firstly, over the course of these years we have refined and perfected our model of innovation. The journey began back in 2004 with the creation of a Corporate Innovation Department, and our initial approach was, in relative terms, more focused on technological possibilities than on the demands of the market and/or the customers.

This centralised department laid the groundwork for evolving towards an innovation “spread” among the different areas of the group. At the same time, the people who are in direct contact with customers have become our principal source of ideas, and technology is now viewed as a tool—an indispensable one—for materialising those ideas.

Meanwhile, at BBVA we have evolved towards a more open model of innovation in which we cooperate with a variety of institutions; in fact, representatives of many of them (MIT, SRI, Continuum, Ideo, etc.) contributed essays to this book. This model also factors in the increasingly important element of customer input, opening up a new space for innovation promoted by the users themselves—which, as Von Hippel points out, is quickly becoming a major source of innovations (Von Hippel, 2005).

However, the most important thing may be that this process of “learning by doing”, the practice of innovation, has brought about a profound cultural change in the people who work for our organisation. Today BBVA has more and better leaders, leaders who are spearheading the transformation of BBVA. And the entire BBVA organisation has embraced a new culture that is open, has a positive attitude towards change, and accepts and encourages flexibility, initiative, accountability, learning and knowledge as values that will give us a decisive competitive edge. This culture also responds to the growing demands and high standards of society with solid ethical principles, transparency and good governance as the keys to earning and maintaining the trust of our customers.

In short, at BBVA we have gone from a traditional corporate culture, with elements inherited from a time when banking was a semi-official, micromanaged industry, to a culture that will allow us to achieve our ambition, which is nothing less than to lead the transformation of the financial industry in the 21st century.

The end goal of this transformation is a new financial system, capable of stimulating growth and sustainable development and of offering more useful, high-quality solutions to meet the needs of more people around the world.

The force that fuels this transformation can only be the thirst for knowledge. This is the driving force behind the project of the BBVA Group, and the publication of this book was inspired by our desire to express and share that motivation.

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