

# Financial Services Sector

SKILLS REPORT  
2021-2022



## TABLE OF CONTENTS

	List of Tables.....	5
	List of Figures.....	5
	Abbreviation.....	7
	Acknowledgement Page.....	9
	Chief Executive Foreword.....	10
	Governor Foreword.....	11
	<b>INTRODUCTION</b> .....	13
	Skills Bahrain.....	13
	The Sector Skills Report.....	14
	Research Methodology.....	14
	Workforce Development Plan.....	15
	Limitations of the Report.....	15
	Content Disclaimer.....	16
	<b>EXECUTIVE SUMMARY</b> .....	17
<b>01</b>	<b>THE FINANCIAL SERVICES SECTOR AND DRIVERS OF SKILL CHANGE</b> .....	24
	Background and Context.....	25
	Digitalization as the Key Driver of Change.....	25
	New Products and Services, Open Banking and Third-Party Providers.....	26
	Other Emerging Technology Businesses.....	27
	Start Ups and Scale Ups in Bahrain.....	28
	ESG Reporting and Green Finance.....	28
	New Business Models and Working Patterns.....	29
	The Positioning of Data Expertise within Organizations.....	29
	Vendor Partnerships.....	30
	Conclusion - The Impact of Change on Skills and Jobs in the Sector.....	30
<b>02</b>	<b>THE FINANCIAL SERVICES WORKFORCE AND THE CHANGING NATURE OF JOBS IN THE SECTOR</b> .....	33
	Employment Levels over the Last Ten Years.....	34
	Characteristics of those Currently Working in the Sector.....	36
	Women in the Financial Services Sector.....	39
	Views on Career Progression in the Sector.....	40
	The Development of Career Maps and National Occupational Standards for Bahrain.....	41
	Occupational Standards (National Occupational Standards, NOS).....	42
	Example of a National Occupational Standard for a compliance analyst job.....	43
	Job Families in Bahrain Financial Services Career Pathways Map.....	44
	Bahrain Insurance Career Pathways Map.....	52
	Emerging Jobs in the Financial Services Sector.....	52
	CBB Controlled Functions.....	53
	Conclusion - The Changing Nature of Employment in the Sector.....	53
<b>03</b>	<b>ENTRY ROUTES AND RECRUITMENT INTO THE FINANCIAL SERVICES SECTOR</b> .....	54
	Pathways into the Financial Services Sector.....	55
	Lack of Career Guidance.....	55
	Higher Education and Entry into the Sector.....	56
	Entry into the Sector - Higher Education Programming.....	57
	Entry into the Sector - Recruitment Assessments.....	57
	Entry into the Sector - Call Centers, BPOs.....	59
	Conclusion - Entry into the Sector.....	59

## TABLE OF CONTENTS

<b>04</b>	<b>TRAINING FOR THE SECTOR AND EMERGING PRACTICE IN SKILLS DEVELOPMENT</b>	61
	Tamkeen's Support for Skills Development	62
	The Bahrain Institute of Banking and Finance (BIBF)	63
	Leadership Training	63
	Training Preferences and Priorities within the Sector	63
	New Forms of Learning and Development - Nano Learning and Micro Credentialling	64
	Integrating the New Approaches to Learning in Human Resource Development	67
	Conclusions	68
	Emerging Issues - Training and Development	68
<b>05</b>	<b>ADDRESSING THE FUTURE SKILLS NEEDS OF THE FINANCIAL SERVICES SECTOR</b>	69
	Background to Previous Skills Gap Research	70
	Current Skills Gap - What the Survey Said	70
	Which Skills Need Developing?	71
	The Core Skills and Behaviors Level Descriptors	74
	Findings from the Line Manager Survey across the Pillars of the Framework	74
	Hard to Fill Vacancies and Recruitment	77
	Digital Skills for a Digital Economy	79
	Bahrain Financial Services' Perspective on Technical Skills for the Future	80
	Future Jobs and their Relationship to Future Skills	82
	Misalignment of Training and Skills Needs in Bahrain	83
	Conclusion - Bridging the Skills Gap	84
<b>06</b>	<b>READINESS FOR THE DEVELOPMENT OF FUTURE SKILLS</b>	85
	Current Gaps in Education for Future Skills	86
	Readiness of Other Training Providers in Bahrain	86
	Readiness of Employers in the Sector to Support the Development of Future Skills	86
	The Role of Performance Management in Supporting Skills Development	86
	Gaps in Leadership for Transformation	87
	The New World of Skills for Bahrain's Financial Service Sector	88
	Learning as a Journey rather than a One-Off Event	90
	Evidencing Skills through Education	92
	Skill-Based Assessments (Competency-Based Assessment)	92
	Formal and Informal Skill Development	92
	Conclusions - Readiness for Future Skills and Work-Based Learning	93
<b>07</b>	<b>THE WAY FORWARD AND KEY PRIORITIES</b>	95
	The Way Forward and Key Priorities	96
	Workforce Planning and Priorities: summary of solutions	98
	<b>APPENDIX</b>	100
	<b>REFERENCES</b>	103

## LIST OF TABLES

Table 1 - Outline of the 3 sectors' survey responses .....	14
Table 2 - Sources of information for this report .....	15
Table 3 - Definition of emerging technology business areas.....	28
Table 4 - Data expertise in Bahrain Financial Services .....	30
Table 5 - Emerging areas of skills priority for Bahrain.....	32
Table 6 - Number of female and male employees in the Financial Services sector .....	36
Table 7 - Example of Tamkeen funded special projects addressing future skills .....	62
Table 8 - Those who answered 'yes' to the survey question 'are you able to find the training?' .....	63
Table 9 - The top 5 skill gaps in Financial Services 2009.....	70
Table 10 - The most important skills in Financial Services 2019 .....	70
Table 11 - Survey: Top 10 skills or characteristics that are important to do their job well.....	71
Table 12 - Survey: Top 10 skills or characteristics that need developing in employees .....	71
Table 13 - Survey findings top 5 future skills .....	80
Table 14 - A summary of the 'new skills' from the changing job roles in the Job Families.....	83
Table 15 - An example of an on the job learning journey .....	91
Table 16 - The summary of the identified areas in this research for focus in the sector's workforce planning .....	99

## LIST OF FIGURES

Figure 1 - HR Managers' percentage responses to the hard to fill vacancies in the sector .....	19
Figure 2 - Key skills that need developing and important skills in the future - top 5.....	20
Figure 3 - The Financial Services Sector Core Skills and Behaviors Framework.....	21
Figure 4 - Historical employment in the Financial Services Sector.....	34
Figure 5 - Total employment in the Financial Services Sector by nationality and sub-category.....	35
Figure 6 - Gender.....	37
Figure 7 - Age .....	37
Figure 8 - Length of service.....	38
Figure 9 - Seniority of respondents.....	38
Figure 10 - Nationality of respondents .....	39
Figure 11 - Survey of length of service and gender .....	40
Figure 12 - What are you helping to achieve in your career in the next 5 years? .....	41
Figure 13 - Development process for Bahrain version of career pathways map for Financial Services Sector .....	42
Figure 14 - The National Occupational Standards Development Process.....	42
Figure 15 - Example of a National Occupational Standard .....	43
Figure 16 - Why would you change your field of study? .....	56
Figure 17 - What is your highest level of formal qualification? .....	56
Figure 18 - University of graduation for employees with a bachelor's degree .....	57
Figure 19 - The assessment scores out of 10 for selected candidates .....	58
Figure 20 - The assessment scores out of 10 for candidates who were not selected .....	58
Figure 21 - Line Manager's priority for training in the next 12 months .....	64
Figure 22 - Survey question: Have you completed micro/nano learning .....	65
Figure 23 - HR response to nano learning recognition.....	65
Figure 24 - On the job application of soft skills learning from nano credentials .....	66
Figure 25 - On the Job application of Technical Skills learning from Nano Credentials .....	67
Figure 26 - The Financial Services Sector Core Skills and Behaviors Framework .....	73
Figure 27 - Line Managers' responses to how their employees apply different Strategy Pillar skills on the job .....	75

Figure 28 - Line Managers' responses to how their employees apply different Leadership & Ethics Pillar .....	76
Figure 29 - Line Managers' responses to how their employees apply different Performance Drivers .....	77
Figure 30 - Channels for recruitment.....	78
Figure 31 - Hard to fill vacancies .....	79
Figure 32 - Insurance sector hard to fill vacancies.....	79
Figure 33 - World Economic Forum Skills needed by 2025.....	80
Figure 34 - The old role-based approach to jobs versus the new skills-based approach.....	89
Figure 35 - The new cycle of on the job learning.....	93



Abbreviation	Full Name
AI	Artificial Intelligence
AISP	Account Information Service Provider
AML	Anti-Money Laundering
API	Application Program Interface
APPs	Software Applications
AWS	Amazon Web Services
BOBF	Bahrain Open Banking Framework
Baas	Banking as a Service
BAB	Bahrain Association of Banks
Batelco	Bahrain Telecommunication Company
BENEFIT	Bahrain Credit Reference Bureau
BFB	Bahrain Fintech Bay
BHB	Bahrain Bourse
BIBF	Bahrain Institute of Banking and Finance
BNPL	Buy Now Pay Later
OBF	Open Banking Framework
BPO	Business Process Outsourcing
BQA	Bahrain Qualification Authority
CASP	Crypto Asset Service Provider
CBB	Central Bank of Bahrain
CBDC	Bitcoin and Central Bank Digital Currencies
CEO	Chief Executive Officer
CFA	Chartered Financial Analyst
CFO	Chief Financial Officer
CFT	Countering the Financing of Terrorism
CX	Customer Experience
DLT	Distributed Ledger Technology
EDB	Economic Development Board
ESG	Environmental, Social and Governance
EU	European Union
EX	Employee Experience
FDI	Foreign Direct Investment
FTP	FinTech Talent Program
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GFC	Global Financial Crisis

<b>GPF</b>	Government Priorities Framework
<b>HE</b>	Higher Education
<b>HEC</b>	Higher Education Council
<b>HR</b>	Human Resource
<b>ICT</b>	Information and Communications Technology
<b>ILO</b>	International Labour Organisation
<b>IoT</b>	Internet of Things
<b>IT</b>	Information Technology
<b>KPI</b>	Key Performance Indicator
<b>KYC</b>	Know Your Customer
<b>LMRA</b>	Labour Market Regulatory Authority
<b>LMS</b>	Learning Management System
<b>MoE</b>	Ministry of Education
<b>MoFNE</b>	Ministry of Finance and National Economy
<b>MoIC</b>	Ministry of Industry and Commerce
<b>MOL</b>	Ministry of Labour
<b>MOSD</b>	Ministry of Social Development
<b>NBB</b>	National Bank of Bahrain
<b>NOS</b>	National Occupational Standards
<b>NQF</b>	National Qualification Framework
<b>PISP</b>	Payment Information Service Provider
<b>QA</b>	Quality Assurance
<b>ROI</b>	Return on Investment
<b>RPA</b>	Robotic Process Automation
<b>SCW</b>	Supreme Council for Women
<b>SDG</b>	Sustainable Development Goals
<b>SIO</b>	Social Insurance Organization
<b>SMBs</b>	Small and Micro Business
<b>SOP</b>	Standard Operating Procedure
<b>TAP</b>	Tertiary Action Plan
<b>TPP</b>	Third Party Provider
<b>UOB</b>	University of Bahrain
<b>UX</b>	User Experience
<b>VC</b>	Venture Capital
<b>WEF</b>	World Economic Forum

## Acknowledgement Page

This report was conducted with the cooperation of several organizations and supporting bodies in the country. We would like to express our gratitude to the Steering Committee Members and the partners who were engaged in the research and data collection, as this report would not have been possible without their involvement, participation, and expertise.

### Steering Committee Members:

- Bahrain Chamber of Commerce and Industry (BCCI)
- Bahrain Economic Development Board (EDB)
- Central Bank of Bahrain (CBB)
- Education and Training Quality Authority (BQA)
- Ministry of Education
- Ministry of Labor
- Ministry of Social Development
- Bank of Bahrain and Kuwait (BBK)
- Gulf International Bank (GIB)
- Ithmar Bank
- National Bank of Bahrain (NBB)





## Governor Foreword

The key to the success of the financial services sector in Bahrain has been the high quality of its human capital, complemented by a visionary, future-ready mindset among its boards and executive management. This ability to pre-emptively address the challenges of the future, along with the willingness to innovate and evolve, is what laid the groundwork for continued growth.

The Central Bank of Bahrain welcomes the inaugural financial sector report prepared by Skills Bahrain, a national initiative under the umbrella of the Labour Fund (Tamkeen), established in cooperation with key public and private sector entities. This comprehensive report provides insight into the sector's workforce and the opportunities the labor market has to offer them. The in-depth analysis of the skills gaps in the sector provides the opportunity to shift the focus to areas where efforts will produce the maximum impact.

Bahrain's workforce is well-educated and tech-savvy but it is critical that we do not take this for granted. In a world characterised by rapid and dynamic change, formal education alone may not be able to keep pace with the demands of the workplace. Ensuring that young people are equipped with sector-specific skills is crucial in a labor market demanding more specialized competencies.

It is clear that the financial sector's future is digital, so we hope that this report will support our endeavours to create an enabling ecosystem to help the digital economy thrive, including digital banking, fintech and insurtech. The intelligence contained in this report will guide a collective effort to further improve the quality of education and training available, so that Bahrainis can fully participate in the opportunities offered by the global digital economy.

**H.E. Rasheed Al Maraj**

Governor, Central Bank of Bahrain



## Chief Executive Foreword

We launched the Skills Bahrain initiative with the purpose of supplying the labor market with skilled Bahraini talent prepared to drive growth and productivity within the organizations they work in and helping Bahrainis build rewarding careers through successful enterprises in the Kingdom.

Skills Bahrain will achieve that by establishing National Occupational Standards for vocations and professions in Bahrain, to meet the rising demand for qualified talent across all economic sectors. At Skills Bahrain we aim to facilitate a smooth transition from education to employment opportunities for Bahrainis by providing the tools needed to support career guidance towards the skills and professions that are highly in demand by the labor market.

To fulfill Skills Bahrain's purpose and objectives we have undertaken a comprehensive sector-level research initiative that will scan the labor market and provide in-depth analysis of the skills required to future-proof specific sectors and ensure their sustainable development. Furthermore, our sector reports will provide an understanding of the labor and skills landscape for each sector, studying the challenges that face them, channeling skill development in the right direction, and contributing to enhancing Bahrainization levels across all sectors.

This report is focused on Bahrain's financial services sector, which is currently undergoing major technological disruption that has reshaped the way financial institutions operate and do business. The wave of digital transformation that swept the financial services sector has undoubtedly left a great impact on the labor force within this sector, its future needs and the skills required to succeed and thrive within it. Through this report we examine all these elements to identify the sector's skill challenges and how they can be addressed to support the sustainable growth of the Financial Services sector and support Bahraini talent to become an active part of that growth.

**H.E. Maha Abdulhameed Mofeez**

Chief Executive - Tamkeen



## INTRODUCTION

The world of work is changing. Governments globally are working diligently to keep up with the pace of change being brought about, such as digitalization and the global COVID 19 pandemic. Consistently, the theme of a 'new normal' is being quoted by governments around the world in the context of national recovery agendas and global change. The World Economic Forum (WEF) stated that 50% of employees will need reskilling by 2025, with 40% of these needing urgent reskilling<sup>1</sup>.

In Bahrain, the Economic Development Board (EDB) highlighted the urgent need for upskilling to address recruitment challenges across a number of sectors<sup>2</sup>. The Bahrain-based think tank, Derasat highlights the urgent need to take a systematic approach to building human capital across Bahrain<sup>3</sup>. Likewise, the Bahrain National Digital Strategy outlined a number of objectives to prepare Bahrainis for digital jobs.

As outlined in the Bahrain National Digital Strategy, it is recognized that digitalization will change the landscape of Bahrain's labor markets. The new Bahrain will see higher numbers of job roles automated, low and medium skills jobs transitioning into higher skilled jobs and new job creation. This rapid transition to the future of work will require academia and vocational education systems in Bahrain to keep up, and Government policy alignment to ensure Bahrain is ready to embrace the digital future. According to PWC, only 1.7% of jobs across the Gulf Cooperation Council (GCC) are digital jobs, compared with 5.4% in the European Union (EU) where automation and digital job creation has rolled out at an increased rate<sup>4</sup>. The number of people working in jobs at risk of digital disruption is higher in the GCC than in North America or Europe. In order to ensure high value jobs for Bahrainis in the future, a data driven analysis of the nature and landscape of employment is needed so that sufficient supply of digital skills meets the demand for digital jobs.

The Financial Services sector is at the forefront of leading the digital revolution in Bahrain. As a sector that is rapidly changing globally, and of significant value to the overall contribution to GDP and the Bahrain economy, it is an obvious sector of focus when looking at the changing landscape of jobs and skills in Bahrain.

Research shows that well-functioning labor markets have a number of characteristics. One characteristic is well informed labor market intelligence and insights to ensure the alignment of supply to the labor market (education and training) matches the demand for jobs. Viewing Bahrain's labor market through the lens of a 'skill gap' provides a narrow view of labor market strengths and weaknesses. Skill gaps combined with job data; hard to fill vacancies; an analysis of employment patterns and career pathways; the strategic direction of business growth areas, and consideration of the declining business areas provide a more thorough picture of the state of the labor market.

Therefore, this Financial Services Sector Skills Report, prepared by Skills Bahrain an initiative under the Labour Fund (Tamkeen), follows international best practice in data collection and research methodology to provide a comprehensive picture of where the sector is going, and the skills needed to help move the sector into the future. Against a rapid pace of change, the report lays the foundation to develop a response and solutions based on evidence-based planning for the future of the Financial Services workforce. This is essential to support its productivity, resilience, and long-term future. A sound understanding of the skills that are really needed for the short and longer terms should inform skills and labor market policies. Once a shared understanding is reached, Bahrain will be well placed to:

- Support the development of skills in line with the needs of the sector for improved business outcomes
- Strengthen the training and development offer, thereby ensuring that new entrants and existing employees have the right skills to succeed

## Skills Bahrain

Bahrain has had a proud history of firsts for the region. The first public school system, the first to launch many women's rights initiatives, and the first dedicated labor market development fund. In addition to these firsts, Bahrain can now be proud of leading the region with a dedicated skills development initiative that integrates the voice of employers with the policies and planning for education and training. Initiated in August 2021, Skills Bahrain is a national initiative under the umbrella of the Labor Fund (Tamkeen), focused on guiding the development of national skills.

Skills Bahrain undertakes extensive primary and secondary research to collate, validate and synthesize information on skills, occupations and the labor market. This information is disseminated to a target audience of employers, employees, students, teachers, parents and career advisors. Qualitative research and quantitative data are combined to develop a range of products, including Labor Market Intelligence, Sector Skills Studies, and associated Workforce Development Plans. Skills Bahrain also designs tools and templates to promote greater transparency and shared understanding of labor market issues among stakeholders, and to enable individuals to take greater

ownership over their career progressions. These include Career Maps and Pathways, and National Occupational Standards.

The Financial Services Sector Report is one of two to be produced as part of the pilot phase of the initial setup of Skills Bahrain initiative; the other is the Telecommunications Sector Report. The reports represent proof of concept, tested for their value to the sectors by feedback from employers.

### The Sector Skills Report (this document)

This Sector Skills Report is the result of extensive research conducted in Bahrain and internationally, which:

- Explains the drivers of change affecting the sector and the impact on jobs and skills
- Profiles the financial services workforce and maps the jobs within it showing the new skill sets required
- Examines the skills of new entrants recruited into the sector
- Sets out the focus and impact of investment in training to date
- Analyzes the skills gaps across the sector, identifies core and future skills needs, and presents a new standards-based approach to skills development
- Assesses the readiness of the skills Ecosystem in Bahrain to respond to changing skill demands in Financial Services
- Proposes training solutions to ensure skills needs can be met in workplace settings
- Suggests a way forward to address the challenges and implement change to support business growth.

Linked to this report are a number of practical tools under development based on its findings. These are designed to assist policy makers and practitioners to visualize and implement the changes proposed, which will be made available on Tamkeen's website ([www.tamkeen.bh](http://www.tamkeen.bh)). Examples of these are contained in the report and include:

- Career Maps for Financial Services and Insurance outlining existing jobs in the sector, grouped into Job Families
- A Core Skills and Behaviors framework containing skills required across all jobs in the sector
- National Occupational Standards describing what a person needs to be able to do to be competent in each job, including the knowledge, skills and behaviors required
- Career pathways that show progression routes in the sector and the qualifications and training required to get there

### Research Methodology

The findings in this document are based on a robust research methodology and the model of employer research proposed by the International Labour Organisation (ILO). Its development was overseen by an industry-representative Steering Committee made up of HR Professionals from ten employers in the sector, in addition to key government and regulatory stakeholders. Data was collected from many sources to inform the findings outlined throughout. Extensive secondary research has informed the benchmarking in the document and provided background for it; all references can be found at the end of this report. Primary research was collected through three sector surveys – one aimed at Human Resource Managers, one at Line Managers, and one at Employees. The significant response rates for the surveys give a high level of confidence to the findings. Over 6,500 people in the sector responded to the surveys in all. Since the sector employs approximately 13,737 in total, this response rate represents input from approximately 43% of employees in the sector. The following outlines the surveys and responses.

Survey Recipient	Responses	Margin of Error and Confidence <sup>2</sup>
Human Resource Managers	156	5% and 95%
Line Managers	1,122	5% and 95%
Employees	5,326	5% and 99%

**Table 1 - Outline of the 3 sectors' survey responses**

Additionally, over 50 interviews and 4 focus groups were conducted to complement the survey findings. Thematic analysis was used to categorise findings from the qualitative research. This report synthesises the available national administrative data,

survey findings, secondary research, interviews and focus groups. The following table summarises the full research and consultation that informed this document.

Sources of Information for this Report	
Administration data	SIO, LMRA, MoIC, MoE, MoFNE
Tamkeen Data	Training and funding insights
Surveys	HR, Employees, Line Managers
Interviews	50 plus interviews with Regulator, CEOs, Line Managers and HR Managers in the sector
Focus Groups	4 Focus Groups with HR, Line Managers and CEOs

**Table 2 - Sources of information for this Report**

For more details on the research methodology please see the Skills Bahrain Research and Data Report.

### Workforce Development Plan

This document is supported by a Workforce Development Plan (WDP) that addresses some of the challenges identified in this report and proposes solutions based on effective vocational work-based learning and assessment. Based on the research findings, the WDP focuses on the specific areas for skills development and associated standards to propose a human resources development plan for the Financial Services sector. Building on applied learning principles, the WDP is designed to support professionals and training practitioners to design and deliver talent development solutions that are directly aligned to employer needs, relevant to the workplace, and with high impact to ensure the outcomes of development meet business objectives. The WDP is based on principles of apprenticeship and standards based skill development that has been successfully utilized in Financial Services sectors internationally.

### Limitations of the Report

The triangulation of the primary research and international benchmarking conducted for this report provides clear insights into the future skills needs of the sector. However, it would have been enhanced by more detailed national administration data to enable deeper analysis into the nature of employment and the characteristics of occupations and career progression in the Financial Services sector. Access to such data was limited, but this document provides a starter for conversation which should create a desire for more evidence-based analysis. Regular, robust analysis will enable comparisons over time to support accurate monitoring of progress and forward planning, which in turn will support the successful development of the sector.

**Content Disclaimer**

This document was prepared by Skills Bahrain an initiative under the Labour Fund (Tamkeen) in May 2022. This document is intended for general informational purposes only. The information presented has been prepared using sources believed by Skills Bahrain to be reliable and accurate. Skills Bahrain makes no representation or warranty of any kind, expressed or implied, regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information or data in this document. The contents of this document shall remain at all times the property of Skills Bahrain.

Tamkeen, including its officers, board members, employees and agents, together with any contributors to this report are not liable for any inaccuracy, error or omission in the contents of this document nor for any loss, damage, cost or expense whether direct, indirect, consequential or special, incurred by, or arising by reason of any person using or relying on the contents and whether caused by reason of any inaccuracy, error, omission or misrepresentation in the contents or otherwise. Anonymous verbatim quotes from the qualitative research have been used throughout this document. Participants in the research were aware of this intent. Some of the quotes have been edited for grammar purposes.



# Executive Summary



## INTRODUCTION

The Financial Services sector is amidst rapid change driven by factors such as advances in technology, globalisation and competition. Employers are facing increased competition from outside of the traditional sector and change in the digital behaviors of consumers, which has been exacerbated by the pandemic. This has seen job roles in the sector changing, with a few jobs converging or disappearing and new ones being created, and a number of international reports suggesting that a number of those currently working within the sector will be significantly impacted either by job loss or the need to reskill.

### The Sector Skills Report

This report is the result of extensive research conducted in Bahrain and internationally. It provides a comprehensive assessment of the skills needed to make the sector fit for the future. A sound understanding of skills in demand should inform skills and labor market policies. Reaching a shared understanding will enable Bahrain to:

- Focus skills development in areas that are needed to support innovation and change in the sector
- Strengthen the training and development offer, thereby ensuring that new entrants and existing workers have the right skills to succeed

Linked to the report, Skills Bahrain is developing a number of practical tools based on its findings, which will be made available through Tamkeen's website ([www.tamkeen.bh](http://www.tamkeen.bh)). These are designed to assist policy makers and practitioners to visualize and implement the changes proposed.

### Drivers of Change in Financial Services

Financial Services enjoy the highest Bahrainization rates across the private sector in the Kingdom. The sector employs 13,737 (2020) people and contributes to 17.8% (2021) of the total Gross Domestic Product (GDP) of the Kingdom. Global trends of a digital shift in consumer demand are also apparent in Bahrain with a number of financial institutions responding with the launch of digital products and services. Additionally there are financial institutions locally investing in utilizing technology to automate processes and creating better operational efficiencies within their organizations. As the sector sees an increase in automation, in particular utilizing technology such as the implementation of Artificial Intelligence (AI) and Robotic Process Automation (RPA), that drive efficiencies across the sector, digitalization has also shifted operational models from traditional hierarchies to more agile operating models. The introduction of FinTech and InsurTech products and services has also changed business. These changes are influencing new business models, value chains, jobs, career pathways and skills, and are impacting on

how people work together. The integration of millennials and now genZ into the workforce, and the changing nature of work, is creating a cultural shift from a manual compliance and rule-based sector to a data driven sector. This has significant implications for skills and jobs in the sector.

### FinTech and InsurTech in Bahrain

The number of FinTech/InsurTech companies in Bahrain has increased by 100% since 2018, reaching 120 entities. This growth has been made possible by the progressive regulations introduced by the Central Bank of Bahrain (CBB). The CBB initiated the region's first Open Banking Framework. To support innovation, CBB has been proactive in encouraging companies to test their products and services in a regulatory 'sandbox' and lowering regulatory barriers for licensees. The sandbox has witnessed success stories with companies now expanding beyond Bahrain. These emerging FinTech and InsurTech companies put further pressure on traditional institutions in the sector to respond through innovation.

### Mapping of Jobs in the Sector

In the course of assessing skills in the sector, Skills Bahrain created a Financial Services Sector Career Pathways Map. This contains approximately 85 jobs across eight Job Families, and an analysis of the key skills and behaviors required to be successful for each Job Family on the map. Every job is backed by National Occupational Standards (NOS) that set out the details of the job, the skills and behaviors required, the career pathways to move in and out of the job, and the qualifications and learning need.

### Hard to Fill Vacancies

Hard to fill vacancies can be an indicator of skill deficiencies in the sector. The survey findings highlighted that the hard to fill vacancies in Financial Services were in traditional roles of Customer Service, Sales and Relationship Management, although it should be noted that these jobs are also among the lowest paid in the sector. This Job Family is also at the highest risk of job convergence and reduction over time. According to the Skills Bahrain Human Resource (HR) Managers survey, data analytics was not considered a hard to fill vacancy, or an area of significant focus for recruitment over the next 12 months. The sector recognized that data analytics is an emerging core skill necessary for all employees, with an emphasis on how to visualize, report and use data insights to develop businesses.

HR Managers were asked to select up to 3 hard to fill vacancy areas. The diagram below represents the hard to fill vacancies.



### Skills Gaps

The research identified a number of core skills and future skills that focused on enablers of data and digital skills such as interpreting and reporting on data, process optimization and using technology. International research cautions against developing data and digital skills in isolation. Rather, these skills need to be part of a core skills framework that ensures the use of data is well contextualized in learning. For this reason, the focus of sector

solutions will be on integrating technical learning with core skills to apply and use the technical learning in a work context, enhancing innovation and sector development. The following outlines the top 5 skills (highest to lowest, left to right) from the Employee, Line Manager and HR Manager survey responses, that they say are in need of development for the future.

### The key skills that need developing in the sector



Critical Thinking



Time Management



Innovation & Creativity



Process Optimization



English Language

### The most important technical skills for the sector in the next 5 years



Data Analytics -  
Interpreting &  
Data Reporting



Process  
Optimization



Using  
Technology



Risk  
Management



Project  
Management

**Figure 2 - Key skills that need developing and important skills in the future- top 5 (highest to lowest, left to right)**

### Competency Standards-Based Development

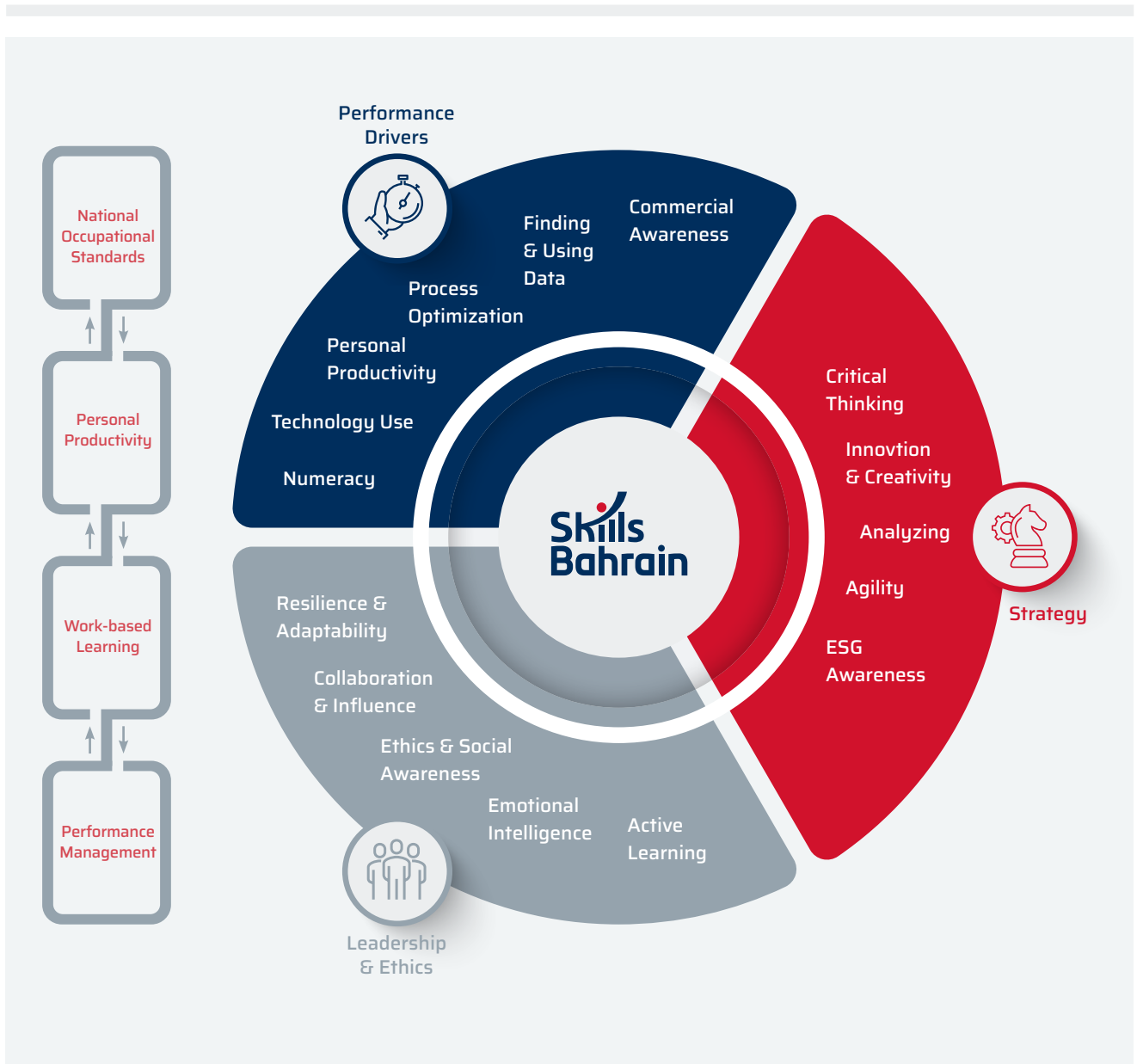
To move the sector towards a skills-based model of development, agreement is needed on a taxonomy of skills and behaviors and what they look like at different levels of proficiency on the job. A standard-based approach allows for the assessment of skills development to measuring the impact. A work-based learning (WBL) approach enables a greater understanding of how skills are applied on the job. Achievements can be documented within a skills portfolio to support career progression. Skills Bahrain has developed a framework containing 16 different skills and behaviors that are internationally recognized as future skills required by the sector globally, allowing for greater transparency and portability. For each of these skills and behaviors a clear definition of proficiency is outlined at each level of knowledge and ability.

### Talent Development Linked to Business Objectives and Informed by Robust Evidence

Businesses recognize they need to take a more strategic approach to talent development and training investments. This will require more agile performance and Learning Management Systems (LMS), coupled with structured in-work learning programs progressing up to degree level. CBB recognizes that strategic leadership is essential to the digital transformation of the sector and has invested heavily in capacity building and leadership development.

The skills support ecosystem, particularly training providers and HR managers in organizations, also needs to be supported to move the whole sector forward using clear measures of impact to improve outcomes. Good practice at modern organizations views learning as an iterative journey that is informed by continuous performance management feedback. The new world of work will require stronger local expertise in learning and development and the ability to create learning journeys and evidence the achievement of standards. LMS can assist with this, providing that LMS platforms cater for assessment-linked learning journeys within organizations.

Robust, up-to-date labor market intelligence and insights are essential to ensure that supply to the labor market (education and training) matches the demand for jobs. An understanding of skill gaps, combined with job data, hard to fill vacancies, analysis of employment patterns and career pathways, is required to help businesses, policy makers, funders and training practitioners support upskilling and re-skilling in the sector. Skills Bahrain aims to provide this type of intelligence to stakeholders for key sectors in the economy.



**Figure 3 - The Financial Services Sector Core Skills and Behaviors Framework**

#### Provision of Education for Future Skills

Based on the Skills Bahrain survey data, over 60% of graduates coming into the Financial Services sector have completed a degree in Business Administration, but analysis reveals that there is no consistent approach to embedding future skills into degree curricula, or to ensuring that graduates have a portfolio to evidence the skills they have gained during education.

#### The New Learning Revolution

The COVID-19 pandemic has sparked a move away from learning at training institutions to online, often in the workplace. Internationally, trends in learning are moving to the use of small pieces of targeted learning that build upon each other to create credentials that are verified by evidence of new skills. More companies are looking to use awarding bodies to accredit in-house training as evidence of quality. Survey respondents stated the importance of learning being embedded within the organization and a critical part of

talent strategy. The survey reported that 29% of employees have engaged in some type of online nano learning that has been more closely aligned to the future skills required than many external training courses. However, survey respondents understood that a shift in focus to learning in the workplace would require increased investment in developing learning and capabilities of the HR teams at Bahrain's Financial Institutions.

### **Readiness to Support Integrated Work Based Learning**

To move human capital development in the sector from the current approach to a skills-based approach based on agreed standards, the training sector needs to change. The skills required to assess and support workplace learning need to be developed among all the training providers who serve the sector. Additionally, a competency standards-based approach to designing and assessing learning requires traditional 'trainers' to become work-based learning 'coaches'.

On the job learning and development also requires a strong understanding of the commercial drivers and business outcomes that learning is aiming to improve. Standards and proficiency descriptors allow this closer alignment between business outcomes and learning outcomes, as they help to facilitate conversations between training providers and employers in the sector.

In addition to the capacity building required in the education and training sector and for HR managers, the supporting infrastructure in the skills ecosystem needs strengthening to help the sector move forward. A national career guidance system is also required that makes use of the labor market intelligence and the tools produced by Skills Bahrain to support school leavers and those working in the Financial Services sector. Bahrain Qualifications Authority (BQA) could consider how it might further strengthen quality assurance (QA) processes to encourage closer alignment of education and training provision to employer demand.

### **Conclusion and Next Steps**

There is a clear desire among employers to move the Financial Services sector into the future. The CBB have provided progressive oversight, creating opportunities for Financial Institutions to adopt FinTech and InsurTech practices, and leverage open-source data for innovation. However, the ability to integrate commercial knowledge, strategy, emerging business models and the role of data in the future is lacking. This has slowed strategic decision making at some institutions. To catch up, the sector needs a fundamental shift in the way that training is planned and delivered; a whole system approach to capacity building; a focus on core skills and behaviors that enable innovation, and the introduction of 'Finding and Using Data' as a core skill across the sector. To successfully develop the sector for the future, a number of priority actions should be taken forward:

- The sector needs to move to a skills-based approach to development and performance management by focusing the sector wide development of data analytics skills, integrated with commercial awareness skills, to ensure employees are ready for job convergence to minimize the national impact of future sector restructuring
- Ensure skill and behavior standards form the basis for all learning and development in the sector
- The learning and development approach for the sector needs to be a structured integrated work-based learning journeys, rather than isolated training events
- Learning and development are designed against actual business outcomes

- Skill and behavior progression is evidenced for workplace impact
- Training providers' roles change from classroom-based delivery only to supporting work-based learning as learning and assessment coaches through many different learning modalities
- People Managers in the sector need upskilling to effectively mentor their employees through work-based learning
- Human Resource professionals in the sector need upskilling on the practices and principles of work-based learning and how to design skill-based integrated learning journeys
- Formal education needs to integrate sector agreed skills and behavior standards into curricula to ensure alignment to employer needs
- Support the agencies responsible for career guidance in Bahrain with sector information, data, advice, career pathways, and standards
- Work across agencies in Bahrain, including BQA and HEC, to ensure work-based learning models are formally recognized and quality assured



A stylized, light gray silhouette of a city skyline is visible in the background. It includes several tall, pointed skyscrapers and smaller rectangular buildings. The skyline is positioned behind a dark blue horizontal band that contains the chapter title. The top of the page is a light gray color, and the bottom is also a light gray color, with the skyline spanning across these areas.

Chapter

# The Financial Services Sector and Drivers of Skill Change

Globally, the Financial Services sector is changing at a rapid pace. The drivers of change are impacting the jobs and skills needs, creating an urgent requirement for reskilling and upskilling in the sector. While this is a global phenomenon, Bahrain has its own labor market dynamics that will shape the national response to the need for rapid human capital development.

This Chapter covers the global, regional and local drivers for change in the sector and how these are affecting working practices and the skill sets needed for the sector in Bahrain.

### Background and Context

Through its Economic Vision 2030 goals, Bahrain has embarked on over 10 years of reform to establish a sustainable, competitive and fair society that is less reliant on oil to build a long-term future for all citizens. This has been driven by government social reforms and, critically, the development of the private sector to drive economic growth by stimulating growth and enhancing productivity and skills, as well as diversifying the economy by focusing on existing high-potential sectors, including Financial Services.

The CBB has responsibility for regulating and supervising the entire Financial Services sector of Bahrain. The Governor of CBB has highlighted the need for all financial institutions to invest heavily in their digital strategies<sup>5</sup>. This relates to ICT infrastructure, human capital and new technologies.

The CBB's digital first strategy was applied across all functions within the CBB, with the aim of becoming a data driven organization. The CBB's FinTech and Innovation Unit is working towards this goal with a three-pronged approach that includes: 1. expanding the availability of innovative financial solutions; 2. highly qualified national talent in finance and banking; 3. supportive policies, including the creation of a regulatory sandbox, the introduction of Bahrain Open Banking Framework (BOPF), and licensing of emerging business models, such as crypto asset service providers and crowdfunding platform operators.

In December 2021, the Government of Bahrain announced its five-year strategy to develop the Financial Services sector as part of the Kingdom's economic recovery plan and to sustain growth. The strategy has five main priorities: creating job opportunities; developing legislation and policies to support the sector; developing the capital markets sector; developing Financial Services and FinTech, and the development of the Insurance sector. One of the strategy's eight performance indicators is to meet the training needs of the most prominent areas of financial sector development by training 3,000 workers annually by the end of 2024.

Globally, the Financial Services sector is changing at a rapid pace. The impact on jobs and skills is unprecedented with company CEOs stating the urgent need to prepare their workforce for these changes<sup>6</sup>. Change is driving the urgent need for new skills,

reskilling and upskilling. While this is a global phenomenon, Bahrain's own labor market dynamics will shape the national response to the need for rapid human capital development.

The baseline context of Financial Services in Bahrain provides an important lens through which to view the research and data in this document and the associated Workforce Development Plan (WDP). This section will examine the specific drivers of change in the sector and elaborate on how these are likely to impact on jobs and the skills needed now and in the future.

### Digitalization as the Key Driver of Change

On a global level, the post Global Financial Crises (GFC) regulatory frameworks have been gradually settling into place and Financial Institutions have been adjusting their business models accordingly. It is now becoming obvious that the accelerating pace of technological change is the most creative force, and also, the most destructive one, in the Financial Services ecosystem today. Digitalization has impacted almost every sub-sector of Financial Services globally. The sector is now rapidly adopting new technologies to drive efficiency, improve customer experience, reduce cost and manage risk.

Incumbent financial organizations, with old legacy systems and highly detailed manual processes, are arguably slower to digitalize compared to new market entrants, though this is a fast-changing picture. The rapid emergence of FinTech is a significant threat to incumbent institutions who are responding by both partnering with Third Party Providers (TPPs) through Application Programming Interface (APIs) that will allow them to integrate new products and services into their legacy systems, and by implementing technologies to support their drive for efficient development of new products, services and processes.

Digitalization can be focused on transforming customer applications and the back-office operations of Financial Institutions, or it can be defined as bringing new products and services to market, such as new digital banks, exchanges and payment platforms. This digital for efficiency versus digital for innovation differentiation is important when considering how incumbent institutions in Bahrain are responding to digital disruption, what the development of the sector in Bahrain could look like, and the Bahrain definition of 'digitalization' from a human resourcing point of view.

### The Definition of 'Digital' in Bahrain's Financial Services

In Bahrain, the term 'digitalization' is interpreted in multiple ways by market participants according to their business and operating models. This observation was confirmed in the course of qualitative interviews and by the views of international Financial Services experts. At one end of the 'digital' spectrum, there is a focus on the deployment of technologies to drive customer experience and operational efficiency. At the other, the focus is on innovative new products and services. Including many variations in between.

Equally, there is a distinction between development and deployment of technology with a spectrum from organizations who primarily implement technologies with TPPs to those who invest in 'in-house' development and deployment. The distinction of these different perspectives is very important for this report. The two different perspectives on digital lead to different perspectives on skills and talent in the sector, and different solutions to addressing skill and job gaps.

In particular, as noted during qualitative research interviews, the choice of approach made by any institution will determine the depth and breadth of the specific technical skills required across their organizations. In the words of one digital leader, *'we need to determine whether we need data scientists and whether our current staff need a reasonable understanding of data science'*. The answer in most instances is likely to be both, but questions around depth and breadth remain. The following paragraphs look in more detail at the various aspects of digital transformation and the differences in approach taken.

### Cloud Computing, Robotic Process Automation and Artificial Intelligence

Across the sector, incumbent institutions are investigating ways of utilising technology to serve their customers cheaper, better and faster. Among all the technologies being adopted, RPA and Cloud Computing have the most significant potential in the near future in terms of driving efficiencies. In Bahrain, the regulatory framework and infrastructure has been rapidly developed to support cloud-based services. The rapid roll out of fiber optic networks and 5G have further enhanced Bahrain's cloud service capability.

Globally, AI is being deployed in many areas across Financial Institutions to drive efficiency and improve customer experience. Banks and insurers have witnessed greater customer engagement with their brands through the deployment of customer AI. Internationally, around one in five industry firms (25% for banks and 19% for insurers) have seen a 20-40% increase in customer engagement<sup>7</sup>. The implementation and integration of these into Financial Institutions' current operating and business models varies depending on each institution's stage of digital maturity. Therefore, the skills required by each institution to deploy technology depends on its stage of digital transformation.

### New Products and Services, Open Banking and TPPs

Based on these initiatives, the following paragraphs categorise the major trends in Financial Services as they relate to the development of new products and services and, in turn, impact on jobs and skills in the sector.

The CBB has been a regional leader, being the first regulator to approve the use and regulation of open banking alongside other policy initiatives such as deployment of a regulatory sandbox, licensing of crypto asset service providers, regulations for Payment Service Providers offering digital payment services.

This progressive regulatory environment has resulted in over 120 FinTech/InsurTech start-ups in Bahrain<sup>8</sup>.

Open Banking Framework (OBF) will provide an opportunity for retail banks and financial institutions to provide a wider range of services with greater efficiency, at lower costs and in a more customer centric manner. Open Banking (OB) is defined as the sharing and leveraging of customer-permissioned data by banks with Third-party Financial Service Providers (TPPs), who in Bahrain, are licensed as Account Information Service Providers (AISPs) or as Payment Initiation Service Providers (PISPs) depending on the nature of services they provide using the access that they get to customer data based on his explicit consent. Customers gain access to new range of innovative services that can help them manage their money better based on customer consent given to banks and other firms holding customer accounts share account information with licensed AISPs/PISPs providers. Open Banking will allow AISPs and PISPs to obtain access to the user/customer permissioned banking, transaction, and other financial data from ASPSPs (conventional retail bank licensees and Islamic retail bank licensees) through the use of application programming interfaces (APIs).<sup>9</sup>

In Bahrain, the first CBB Sandbox graduate leveraging Bahrain's open banking network is Tarabut Gateway. Bahrain-based Tarabut Gateway integrated 15 banks in Bahrain through their APIs. Tarabut Gateway has partnered with a number of Bahrain banks to use the Account Information Service Provider (AISP) and PISP services and enable their customers to link access all their accounts on one online banking platform and make payments. Currently 21% of the companies in the CBB Fintech Sandbox are AISP and/or PSIP providers<sup>8</sup>.

In December 2021 Bahrain Telecommunications Company (Batelco), having received a license from the CBB to offer banking services, launched its new company BEYON Money. Described as a 'super money APP', BEYON money, can offer integrated offerings to customers including Visa Prepaid Cards, payment wallet, categorization of expenses and financial insights and digital remittance<sup>10</sup>.

In January 2022 Batelco added three new companies to their portfolio with the announcement of the three new companies as global players in different aspects of digital business<sup>11</sup>:

- BEYON Cyber – An end-to-end cybersecurity solution company providing management services and advisory in cybersecurity
- BEYON Solutions - Utilising Batelco's ICT partner across the world, this company will offer solutions to a range of companies to help them scale and integrate digital solutions

- BEYON Connect – A focus on SaaS platform service to public and private sector companies

Integrating APIs through open banking and the ensuing movement of non-traditional service providers into the Finance sector has implications for those who work in this area. Job opportunities will no longer be confined to the traditional institutions and workers will require core and transferable skills that can be applied across a range of work contexts.

### Digital Payments

Payments are becoming increasingly cashless, a trend accelerated by the recent pandemic and led by millennials and international research suggests that this trend towards contactless, cashless payments, including for small and micro businesses (SMBs), is set to continue<sup>12</sup>. In Bahrain, the increase in digital payments is even higher than global trends and CBB has played an active role in encouraging this. Bahrain's leading digital payments company, BENEFIT has seen exponential growth during the pandemic with the Bahrain Economic Development Board (EDB) reporting BENEFIT Pay announced a 1,257% increase in the number of remittances through its Fawri+ service during the month of March 2020, worth some BHD103 million<sup>13</sup>.

Bahrain has seen a rapid rise in payment related FinTech's in the past two years, with a recent surge in 'Buy Now Pay Later' (BNPL) platforms being incubated in the CBB Sandbox<sup>14</sup>. These companies offer instalment payment terms for the purchase of products offering ease to customer purchasing and payment terms. Promising Bahrain companies, such as the first Sharia'a compliant BNPL platform 'Taly', are leading this trend in Bahrain and anticipated to grow across the region.

### Crypto Assets, Crypto Asset Service Providers and Blockchain

Crypto assets and crypto asset service providers were formally recognized in Bahrain with the first issue of the Crypto-asset ("CRA") Module under Volume 6 of the CBB Rulebook in February 2019. The CRA Module, in conjunction with other Volume 6 Module, provides the CBB's full-fledged regulatory framework for licensing and supervision of crypto-asset services encompassing licensing considerations, business standards, ongoing obligations, cybersecurity and AML requirements, among others<sup>15</sup>.

The CBB's initiative has supported the FinTech ecosystem in Bahrain with a partnership for crypto asset development between the regulator, FinTech start-ups and Financial Services institutions.

Bahrain has taken a highly proactive approach in the crypto space and digital technologies, as of 2022, Bahrain rank 1<sup>st</sup> among GCC countries and 7<sup>th</sup> globally for its proactive approach to crypto asset regulations, according to Solidus Labs Global Crypto Regulation (GCR)<sup>16</sup>. Since February 2019, Bahrain was the first country in the GCC to grant crypto asset service provider (CASP) licences, positioning itself as a major hub in the region. As of February 2022, 36% of the CBB Sandbox residents are crypto asset service

providers<sup>8</sup>. Bahrain-based Rain Management W.L.L. was the first crypto asset service provider to graduate from the CBB Sandbox in 2019<sup>17</sup> creating an application platform for trading and exchanging crypto-assets and is currently operating as a Category 3 CRA licensee. CoinMENA B.S.C. (c) is another digital asset success story, securing a CBB license in November 2020 and is currently operating as a Category 3 CRA licensee. With ambitions across the region, CoinMENA received USD9.5 million seed funding in 2021 to grow the business<sup>18</sup>. Established in May, 2022, the Bahrain based CASP Binance Bahrain B.S.C. (c) is the first company to receive a Category 4 license by the CBB for a full range of crypto asset and exchange services<sup>19</sup>.

The recognition and rise of CASP companies and testing of cross border crypto settlements in Bahrain brings with it important new skills around compliance and risk audit for these companies. Traditional compliance and audit professionals will need to understand the complex regulatory and operational intricacies of blockchain-based asset systems to ensure integrity is maintained. It also highlights a need for competent cybersecurity experts who understand the security and risk implications of all aspects and touch points of these business models. The rise of Fintech in Bahrain brings with it a rise in demand for software development, data analytics and AI/Machine Learning expertise.

### Other Emerging Technology Businesses

While the business application of many of the previously mentioned emerging areas fall within the category of 'FinTech', many other industries and business areas are looking to emerging technologies to support alternative business models, including utilising digital payments and supporting efficiency in operations. The following outlines a brief definition of some of these.

## Definition of Emerging Technology Business Areas

<b>InsurTech</b>	The application of emerging technology and innovation to offer new or improved products and services and more efficient operating models. In insurance this can include utilising AI for deeper data insights, sensors such as Internet of Things (IoT) to understand consumer habits and behavior to develop more tailored insurance experiences and payments and integrating financial products into insurance businesses through platforms and payment services.
<b>RegTech</b>	Using technology to support the monitoring, compliance and delivery of regulatory frameworks. By leveraging cloud computing, RegTech can allow regulator and companies to automate compliance and monitoring through big data analytics that provide real time information.

**Table 3** - Definition of Emerging Technology Business Areas

### Start-Ups and Scale Ups in Bahrain

Bahrain's ecosystem is well prepared to support start-ups in the previously mentioned disruptor business. With the mandate to drive the development of FinTech/InsurTech, Bahrain FinTech Bay (BFB) is a hub for start-up and scale up FinTech/InsurTech businesses offering a coworking space, incubator and accelerator services, training programme and general support to both local and foreign FinTech companies. In addition, the CBB's Regulatory Sandbox acts as a focal point of entry for fintech start-ups to the Kingdom.

In addition to BFB, there are 18 different incubators/accelerators in Bahrain supporting the start-up community. Investment in Bahrain start-ups has increased 200% since 2019<sup>8</sup>, demonstrating confidence in the Bahrain ecosystem. Part of this confidence in Bahrain start-ups comes from the progressive support of the Bahrain Government and regulators towards start-ups. As outlined previously, the CBB's progressive approach to regulator support for innovation in Financial Services has attracted companies from both inside and outside Bahrain. Established FinTech businesses bring with them significant expertise, skills and mentoring ability that could significantly support the development of the high-tech skills of Bahrainis.

### ESG Reporting and Green Finance

Global trends in regulatory strategy and policies clearly show a significant shift in terms of how Financial Services need to evolve around Environmental and Social Corporate Governance (ESG), climate change and the Sustainable Development Goals (SDG). The Sustainable Development Goals form the 2030 Sustainable Development Agenda adopted by the United Nations (UN) in 2015. They outline 17 areas for focus by UN member nations to improve global outcomes for the well-being of humanity

and the environment<sup>20</sup>. As a member of the UN, Bahrain has agreed to work towards achieving the 17 SDGs<sup>21</sup>. Part of the progression towards this achievement is for corporate governance to demonstrate recognition and actions towards the achievement of these goals as part of their standard operating practices. ESG is a framework for assessing corporate practice against ethical practice and risk profiles. Bahrain Financial Services Institutions need to build capacity on the reporting requirements and practices of ESG to ensure they are aligned to Bahrain's wider SDG contributions.

In 2018 the Bahrain Association for Bankers (BAB) published a paper on policy recommendations for sustainable finance. The paper outlined analysis on regional and global trends and made a series of recommendations for the implementation of ESG by Bahrain financial institutions<sup>22</sup>. In addition, Bahrain Bourse (BHB) issued a comprehensive ESG reporting guide for the sector following international best practice on reporting guidelines<sup>23</sup>. To further support capacity for ESG reporting, Bahrain Institute of Banking and Finance (BIBF) have launched their Sustainable Development Academy. Various short courses upskill the sector on general concepts of ESG, circular economy, technology, and sustainability, as well as Fitch Learning certified training for more specific applications<sup>24</sup>.

*‘People keep saying innovation and creativity, that you have to have a problem to solve or opportunity to pursue and doing that means you’ll be changing it all the time during the design thinking process.’*

- HR Manager

### New Business Models and Working Patterns

#### Agile operating models and remote working

As automation, and in particular the implementation of AI and RPA, drive efficiencies across the sector, digital has shifted operational models from traditional hierarchies to more agile operating models. Remote working has also drastically impacted working patterns in the Financial Services sector. The majority of Line Managers in Bahrain surveyed for this report said that remote working has meant smaller teams with more diverse tasks. 49% of Line Managers stated that personal productivity had increased due to remote working, indicating that it is effective. 62% of Line Managers said remote working increased ‘out of the box thinking’ and 60% said they saw a rise in ‘initiative and creativity on the job’. The survey findings would indicate remote working as being positive for the sector overall.

Agile as a concept is broader than just flexible working patterns. One of the core principles of Agile is for empowered flat structured teams, tribes, or networks of people from within the organization to work cross functionally<sup>25</sup>, based on the skills they offer. This sees entities moving from rigid Job Description-driven organizations to skill-based agile teams for specific organizational outputs or goals. The pandemic prompted this kind of working arrangement as jobs were redefined due to branch closures, department shifts or automation of tasks. People were redeployed into different areas of the business. This was highlighted by one Line Manager who said, *‘Due to COVID and closing some branches, we moved some front-line employees to the back-office operations of the bank, which gave them exposure to new things. They were trained on new tasks.’*

Other principles of Agile can be seen as core emerging patterns of working. The emphasis on Customer Experience and Customer Journey Mapping is an Agile principle to view problem solving by beginning development with the end user needs and working ‘backwards’. Many Bahrain Financial Services institutions adopt this agile approach to serving customers.

Agile principles take a different approach to trial and error in new product development<sup>26</sup>. While new product development in Financial Services is required to ensure compliance and minimize risk exposure, there is evidence of a new culture of this more Agile ‘trial and error’ approach in the sector. The CBB Sandbox is a key example of an opportunity for Agile development within a structured, controlled regulatory environment. Likewise, Financial Institutions can utilize controlled environments to trial new product prototypes while also using analytics to create scenarios and predictive data insights to inform the feedback cycles of development. This need for entrepreneurship and risk taking was highlighted as necessary for the sector many times during the research.

While the comprehensive adoption of Agile principles is unlikely in the heavily regulated and risk driven businesses of the Financial Services sector, some Agile principles can be identified as impacting working patterns in the sector. As institutions develop a culture of innovation, some of these principles are likely to continue. Skills-based cross functional teams present excellent upskilling opportunities for the adoption of new data and digital skills in an organization.

### The Positioning of Data Expertise within Organizations

One area of operational challenge is how and where data insights expertise is structured in organizations. The strategic positioning of data expertise and how it interacts with data end users in business units is a key part of ensuring knowledge transfer occurs for this key skill and is dependent on an institution’s operating model. Based on Skills Bahrain research, there are three levels of integration of data in Financial Services institutions in Bahrain:

*‘Digital skills on their own are insufficient. So many vendors make technologies and platforms and the gap between digital skills and the technical aspect of developing a product is huge. So someone purely with digital skills, without technical product knowledge is not useful. Someone with a combination of digital skills and technical knowledge can generate the most powerful engine because it suits the needs of business.’*

- Line Manager

<b>Data as an Outsourced Service</b>	The mining, extraction, cleansing, structuring an initial analysis of their data is outsourced to a Data Specialist company. This company may be based offshore. This approach to data insights may cause issues with data being viewed by TPPs who need to be contractually embedded in the institutions’ risk and compliance systems to minimize risk exposure by the third party. The nature of this relationship is purely transactional, and the data insights are passed to the business unit without any significant knowledge transfer.
<b>Data as an Internal Consultant</b>	A Data Scientist works as an internal consultant to the business units to teach them how to extract, clean, structure and use data insights. The knowledge transfer and capacity building aspect of this relationship is a core part of the engagement. The consultant may act as an internal mentor for developing capacity.
<b>Data as an Internal Service Model</b>	Working with the Data Scientist specialist in their organization to extract and interpret these insights. The Data Scientist is an employee of the organization and works as a ‘service’ department across all business units. The Data Scientist may or may not have prior experience working in Financial Services and therefore, the communication of business needs into data outputs can sometimes be ‘lost in translation’ as the business unit and the Data Scientist work together to extract useful insights. The Data Scientist’s services may be purely transactional or utilized for capacity building and knowledge sharing. The manner in which knowledge is transferred in the process will depend on a number of institutional factors.
<b>Data Expertise Embedded in Business Units</b>	Financial Services have the data extraction, cleaning, structuring and analyzing expertise within the job role of a person in the business units. This model ensures a closer alignment of business needs with data outputs but requires a significant amount of upskilling for those in the business units.

Table 4 - Data expertise in Bahrain Financial Services (Source: Skills Bahrain Analysis)

Vendor Partnerships

The research indicates many institutions do not have the in-house expertise, nor appetite for capital expenditure to investigate the more complex commercial opportunities that open banking may provide. Some of these institutions partnered with TPP vendors to explore opportunities made possible by the integration of third-party APIs into their systems for a variety of different platform-based services.

During the research, some institutions talked about how they work with vendors for this purpose but highlighted the product and institutional expertise needed to make this work.

The skills to work with and manage vendors was mentioned as a barrier to effective innovation partnerships. This was mentioned particularly in the context of Senior Management not understanding the nature of Venture Capital (VC) that drives the valuation of FinTech TPPs. To work with these partners, financial institutions need to understand the nature of VC investment and not the classic banking perspective on balance

sheet valuation. This difference in understanding can create a fundamentally different perspective on innovation development opportunities, especially if key decision makers are not aligned in their understanding of these TTP partnership investments.

The role of knowledge transfer through vendor partnerships was discussed in both positive and negative terms by respondents. Some respondents said the relationship worked well as the vendor partner was brought into the business to integrate closer with its business needs, resulting in better outputs. On the downside, the vendors left the business and the capability to continue the development in their absence was lacking.

Conclusion- The Impact of Change on Skills and Jobs in the Sector

The research and analysis of the market potential, the leading position of Bahrain in digitalization, and the emergence of a robust FinTech ecosystem, points clearly to where the future growth will be, and to the future shape of the Kingdom’s Financial Services industry.

The rate of digitalization across the sector in Bahrain means significant change in the types of skills and knowledge needed. While data analytics was not identified as a significant hard to fill vacancy nor area of priority recruitment by HR Managers in the survey, there is some evidence from analyzing recruitment advertisements that many of Bahrain's Financial Institutions are looking to recruit the skills that many of the FinTech start up entrepreneurs have, such as data analytics, software programming, blockchain expertise, and an understanding of the business models and systems that support FinTech. The extent to which Financial Institutions seek to recruit this talent, build it in house, or hire the services of FinTech start-ups depends on each institution's strategy and digital maturity.

Many of the skills needed to grow an operational FinTech company – digitalization for innovation – are similar to the skills needed to develop in-house innovation within a financial institution. However, the type and level of scale up among FinTechs and InsurTechs in Bahrain will help determine the skills needed locally. Scale up intentions are commercially sensitive, so it is difficult to

collect reliable data on anticipated FinTech and InsurTech-related jobs in the near future, but based on sector information, it is anticipated that at least two companies will recruit approximately 300 Bahrainis for high tech jobs in Bahrain in 2022.

While many of the technology skills needed for technology deployment (efficiency and service delivery) are similar to those needed for technology development (new products and services, FinTech, InsurTech), they will vary in terms of the breadth and depth required. The following table summarises the current skills development needs in the sector, the main drivers of change and, as a result of these, anticipates priority skills for the next five years.



CURRENT STATE	DRIVERS OF CHANGE	FUTURE STATE – 5 YEARS
<b>All areas of Financial Institutions</b> <ul style="list-style-type: none"> <li>Core skills and behaviors for all business areas need to be developed</li> <li>Exploring the current role of data in jobs</li> </ul>	Increasing utilization of technology for digitalization and automation	<b>Core skills and behaviors needed to perform all jobs in the sector will change to include:</b> <ul style="list-style-type: none"> <li>Data Analytics – programming enquiries for extracting, cleaning, analyzing data (either embedded in business units or as a service department)</li> <li>Using data – interpreting and reporting data for tailored business insights and customer experience</li> <li>ESG awareness for understanding the impact of ESG on the sector</li> <li>Commercial awareness to understand new business models and their impact on customers</li> <li>Commercial awareness to understand how to ask Data specialists for useful data enquiries</li> </ul>
<b>Infrastructure and Security</b> <ul style="list-style-type: none"> <li>Moving legacy systems to the cloud and incorporating digitalization and automation</li> </ul>	Increase use of the Cloud to support API integration with TPP and to improve infrastructure costs	<b>Increase requirement for skills in:</b> <ul style="list-style-type: none"> <li>Cybersecurity technical skills</li> <li>Cloud computing</li> <li>Integration and data flows understanding</li> <li>Coding and programming</li> <li>Using Data Analytics for risk and threat identification and data models for scenario planning</li> </ul>
<b>Compliance and Risk</b> <ul style="list-style-type: none"> <li>Current risk models will need to expand to include additional risk considerations</li> </ul>	<p>The changing nature of 'risk' in Financial Services requires additional expertise</p> <p>CBB RegTech systems will be developed for compliance and risk reporting</p>	<b>Increase requirement for skills in:</b> <ul style="list-style-type: none"> <li>Cybersecurity risk</li> <li>ESG compliance reporting</li> <li>ESG risk management</li> <li>Digital currencies/assets risk and compliance</li> <li>Global trends in Central Bank Digital Assets</li> <li>Business model and strategic risk</li> <li>Data Analytics – for automated monitoring and detection</li> <li>Data Analytics – visualizing and reporting on data for better risk and compliance</li> <li>Using RegTech systems for compliance and reporting</li> </ul>
<b>Incumbent Financial Institutions - digital transformation for efficiency</b> <ul style="list-style-type: none"> <li>Implementing technology deployment and automation</li> </ul>	Digitalization and automation to improve process flows and efficiency	<b>Increase requirement for skills in:</b> <ul style="list-style-type: none"> <li>Process analysis and redesign</li> <li>Lean Six Sigma</li> <li>Agile principles</li> <li>Coding for Robotic Process Automation</li> <li>Coding for Data Analytics and AI</li> <li>Data Analytics – Visualizing and Reporting on data to streamline and automate processes and monitor performance</li> <li>Cybersecurity</li> </ul>
<b>Incumbent Financial Institutions – Digital for new products and services</b> <ul style="list-style-type: none"> <li>Exploring and implementing technology development</li> </ul>	Product development, CX and innovation units looking to TPP partnership or grass roots innovation for new or amended product and services	<b>Increase requirement for skills in:</b> <ul style="list-style-type: none"> <li>Strategy skills to integrate TPP business models</li> <li>Technical knowledge around embedded finance and embedded banking systems</li> <li>Commercial awareness to talk the same language and communicate with TPPs and Financial Institution business units</li> <li>Understanding embedded finance and embedded banking</li> <li>Cybersecurity</li> <li>Coding in multiple languages</li> <li>Understanding Data Flows</li> <li>User Experience (UX) design</li> <li>Data Analytics – Visualizing and Reporting on data improve CX, product development and sales</li> <li>Knowledge transfer - Using TPP and knowledge partnership for capacity building and talent development</li> </ul>

**Table 5 – Emerging areas of skills priority for Bahrain (Source: Skills Bahrain Analysis)**

# 2

Chapter

## The Financial Services Workforce and the Changing Nature of Jobs in the Sector



This Chapter provides an overview of employment in the Financial Services sector. It includes a profile of the workforce and their views on career progression within the sector. It also presents a comprehensive mapping of jobs in Financial Services and Insurance, reflecting the convergence of roles and skill sets required as a result of the changes outlined in Chapter One.

**Employment Levels over the Last Ten Years**

The Financial Services sector has seen fluctuations in employment numbers, as outlined below. Since 2009, employment levels

in the sector have been falling by an average of 2.2% per year (compared to growth of 3.6% across all sectors). This could reflect the impact of digitalization and efficiency on costs and streamlining operations as well as merger and acquisition activity in the Kingdom. 2020 saw a sharp decline as the impact of the pandemic hit the sector, however, a rebound in 2021 has seen employee numbers increase significantly. The following tables show employment numbers in the sector since 2013, and a breakdown of employees by sub-category and nationality.

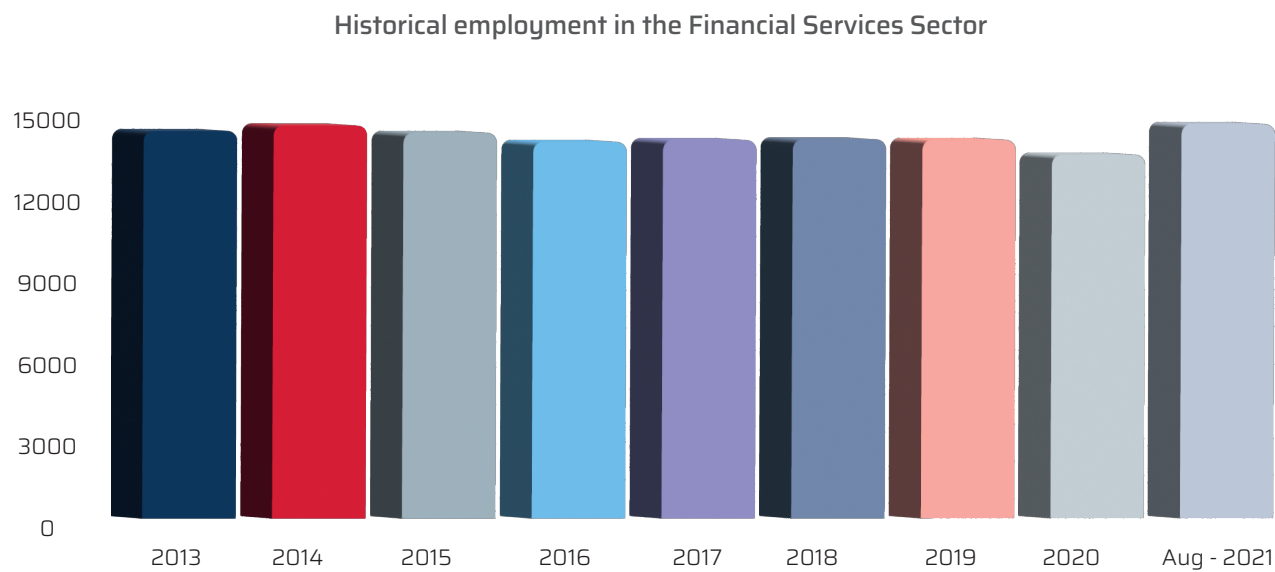


Figure 4 - Historical employment in the Financial Services Sector (Source: LMRA)

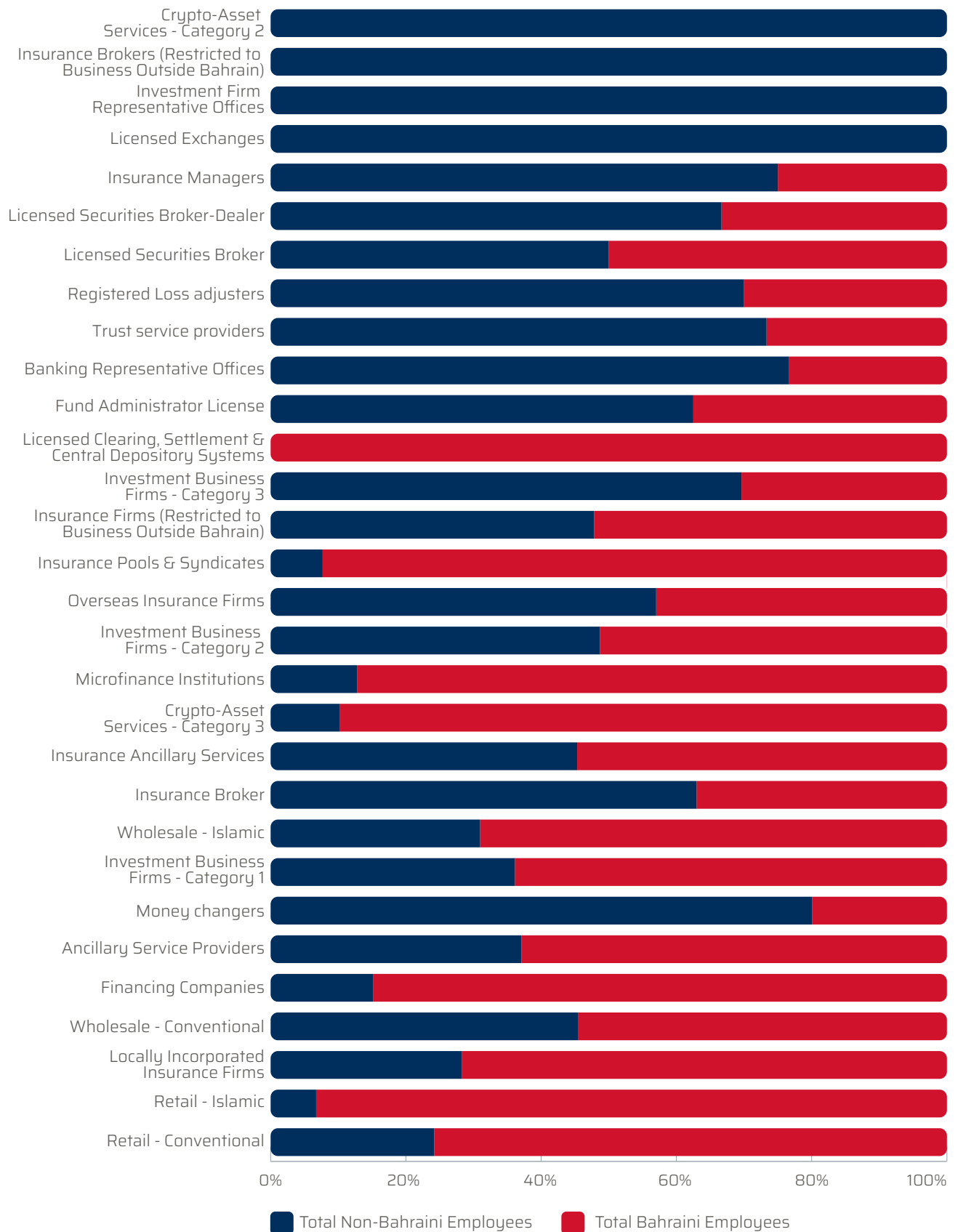


Figure 5 - Total employment in the Financial Services Sector by nationality and sub-category (Source: CBB, LMRA)

### Characteristics of those Currently Working in the Sector

The survey responses combined with available national administration data provide good insight into those working in the sector and the following highlights some key demographics. According to CBB 2020 Manpower data, female employees in the sector make up 33% of the workforce.

Female Employees (both national and expat)	Male Employees (both national and expat)	Total
4,619	9,118	13,737

**Table 6** - Number of female and male employees in the Financial Services sector (Source: CBB)

Females represented 38% of all survey respondents, this would indicate a higher representative percentage of females answered the survey than males. The number of employees responding to the survey was 4,572, representing 38% of the overall employment of the sector. The average age of survey respondents was relatively young with nearly 70% being between

25 and 40. Nearly a quarter of all respondents had been working in the Financial Services sector for 11 to 15 years. The largest majority described their level in the hierarchy as 'analyst' or 'senior analyst'. The following provides the key demographics of the survey data:



Gender of Survey Respondents

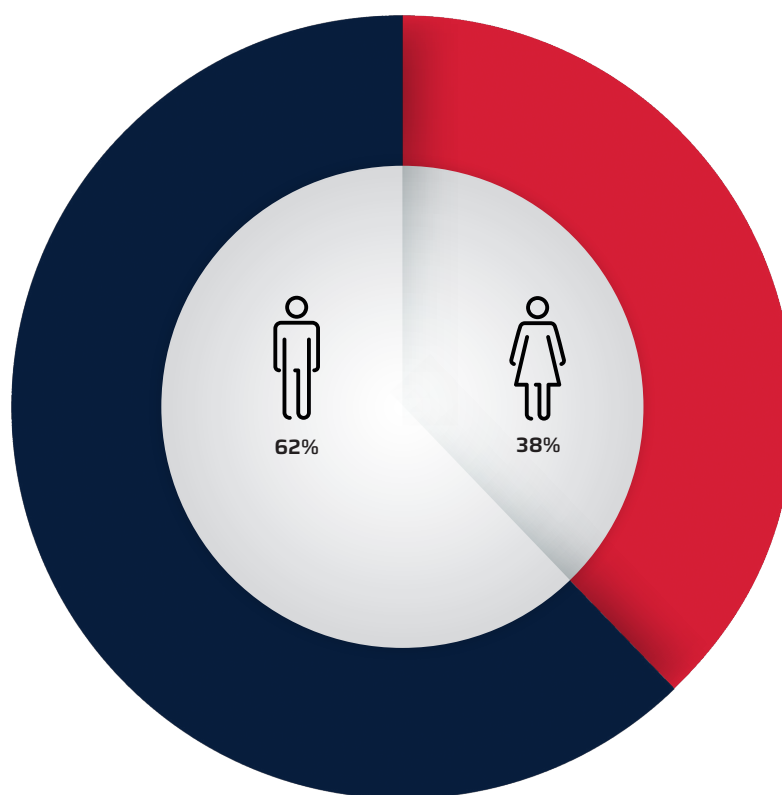


Figure 6 - Gender (Skills Bahrain Employee Survey, 2021)

Age of Survey Respondents

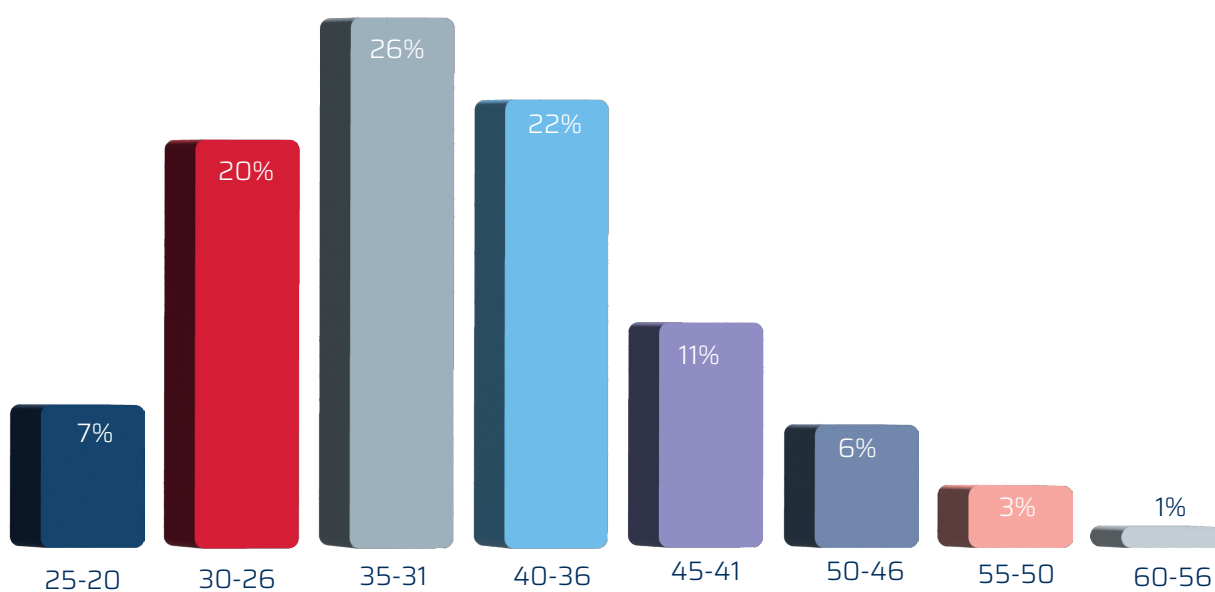


Figure 7 - Age (Skills Bahrain Employee Survey, 2021)

### Number of Years Working in Financial Services of Survey Respondents

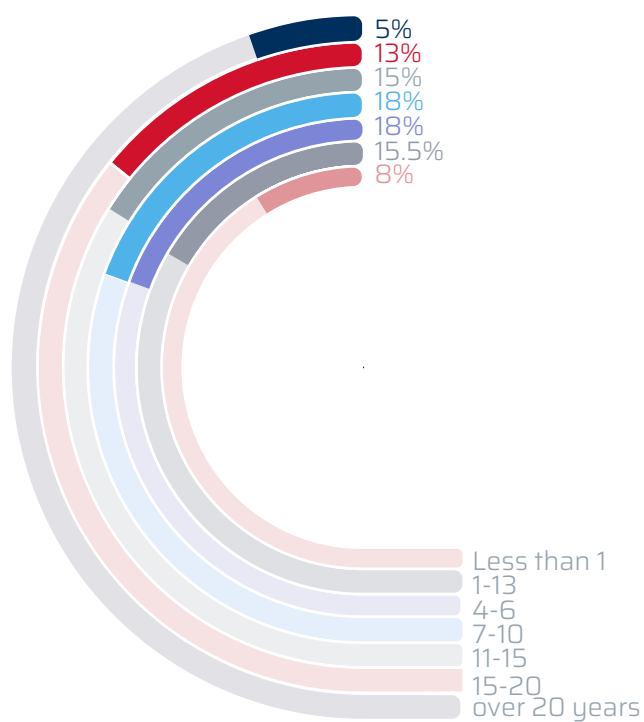


Figure 8 - Length of service (Skills Bahrain Employee Survey, 2021)

### Level of Seniority of Survey Respondents

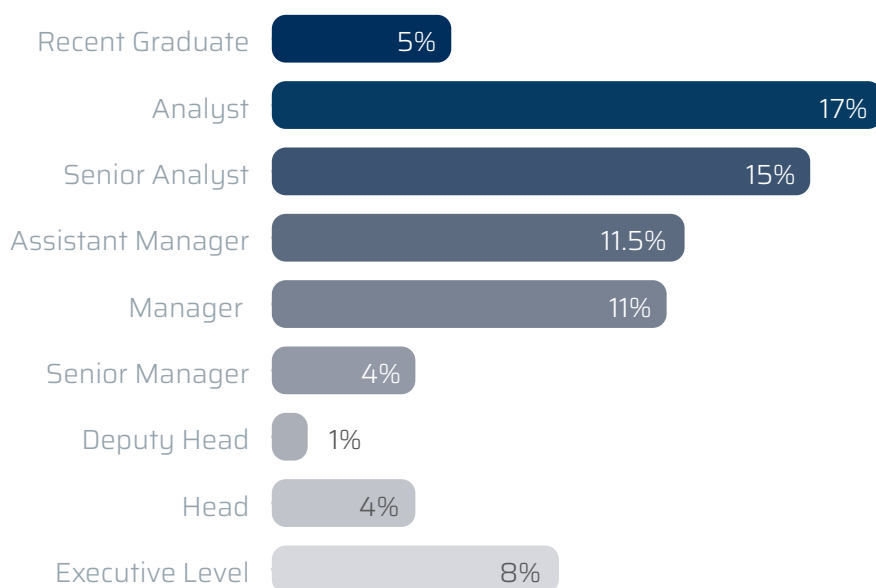
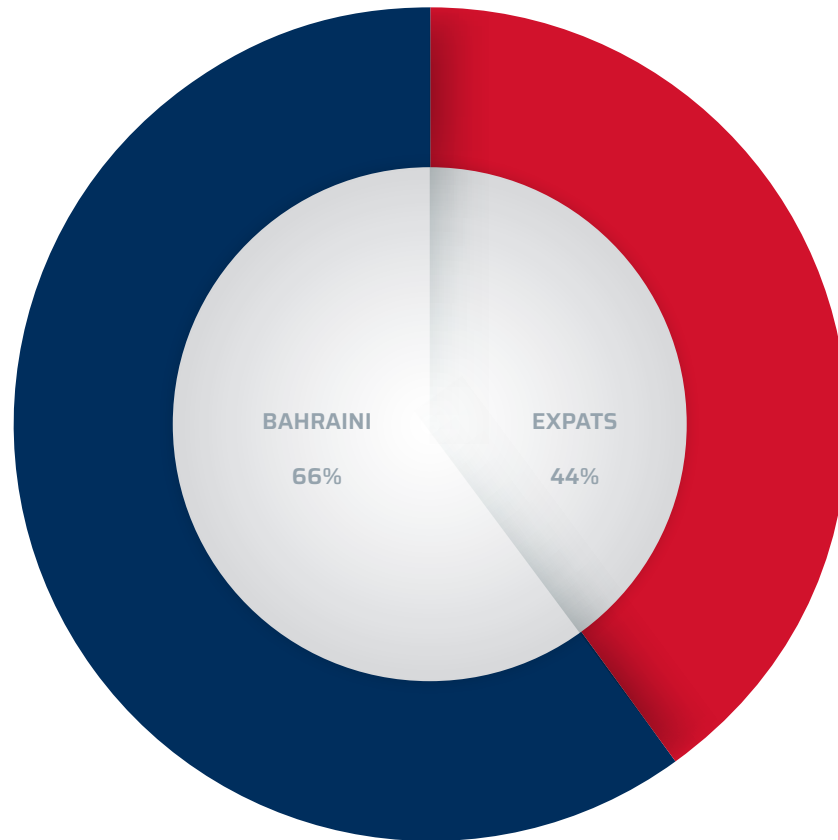


Figure 9 - Seniority of respondents (Skills Bahrain Employee Survey, 2021)

### Nationality of Survey Respondents



**Figure 10** - Nationality of respondents (Skills Bahrain Employee Survey, 2021)

### Women in the Financial Services Sector

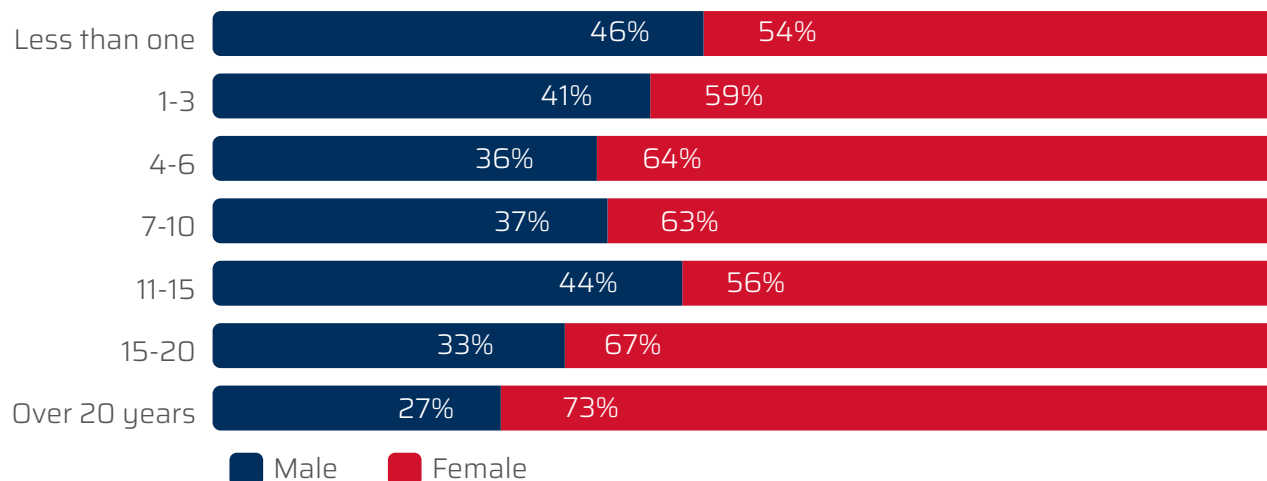
Currently, women make up 33% of the Financial Services workforce and 13% of Executives in the sector. The Supreme Council for Women's (SCW) 2015 study into Women in Financial Services highlighted the following <sup>27</sup>.

- The percentage of Bahraini women on Boards of Directors was about 10% for the sector
- Women held 13% of Senior Executive positions, 17% as Department Heads, 32% as Assistant Directors, and 45% as Senior Officials
- The study showed that 67% of financial institutions are committed to equal opportunities and the integration of women's needs into their regulations and laws, and specifically in policies and recruitment procedures.

The SCW, chaired by Her Royal Highness Princess Sabeeka bint Ibrahim Al Khalifa, wife of His Majesty the King and President of the Supreme Council for Women, has played a significant role in empowering Bahraini women and ensuring their inclusion in national initiatives. The National Plan for the Advancement of Bahraini Women (2013-2022) was launched by the SCW and consists of 5 main pillars, one of which is to 'empower women to competitively contribute to the progress march based on the principle of equal opportunities.'

The Skills Bahrain survey indicated that the representation of Bahraini women at the mid-career level (after 11-15 years) is at its highest, however, fewer women tend to stay in the sector beyond 15 years, as highlighted in the following graph.

### Length of Service in Financial Services

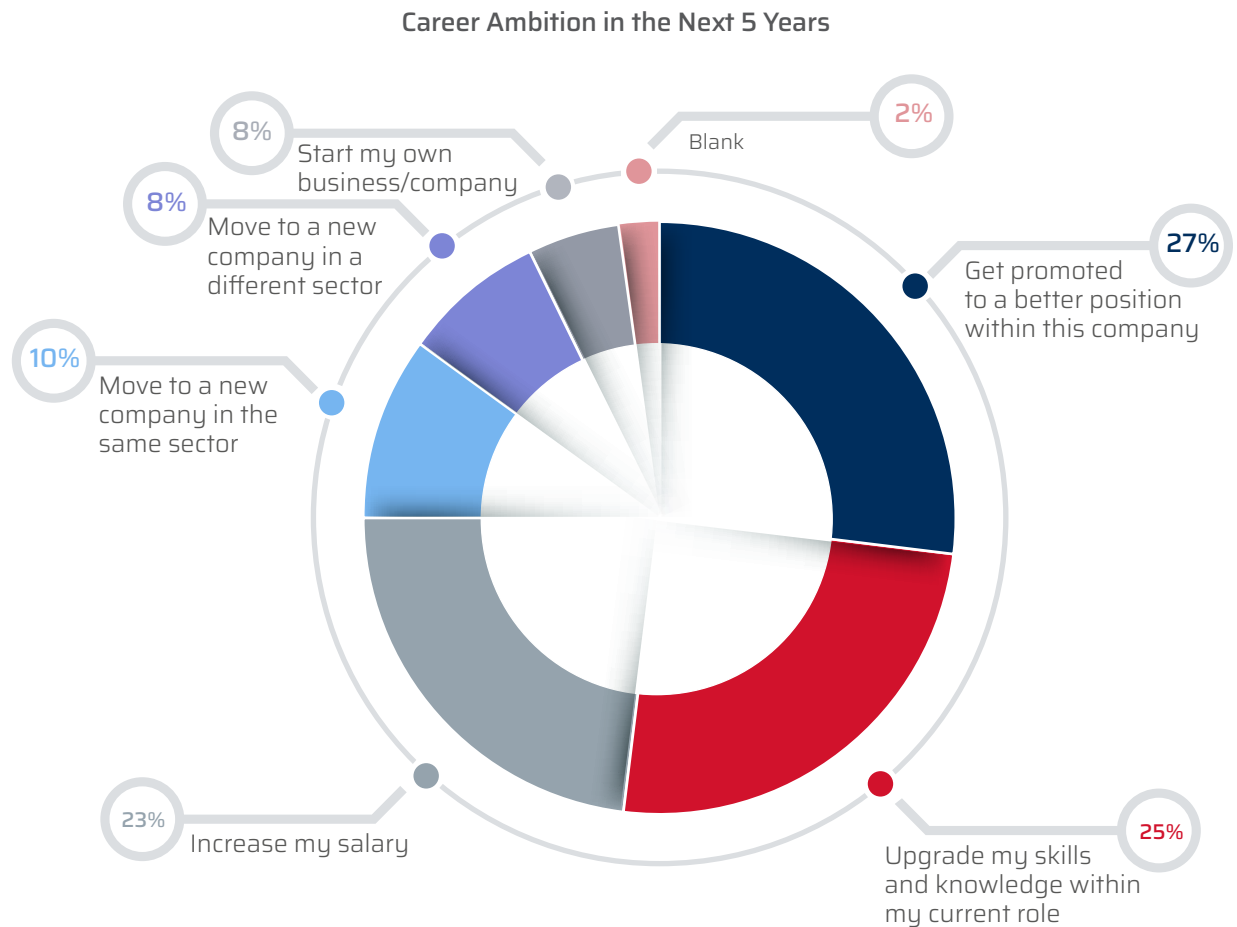


**Figure 11** - Survey of length of service and gender (Source: Skills Bahrain Line Manager and Employee Survey, 2021)

It is important to note that this decrease may also be due to their eligibility to retire and the likelihood of women taking this opportunity earlier than their male counterparts. Harvard Business Review highlighted the 'The Athena Doctrine' impacting women in the Financial Services Sector. It argues that effective senior bankers are viewed as having characteristics that are stereotypically masculine such as being aggressive, dominating, and transactional. They concluded that this makes it harder for women to prove themselves in the industry and explains the very high quality of senior women in Financial Services<sup>28</sup>.

### Views on Career Progression in the Sector

The survey asked employees how they viewed their careers and 88% of respondents stated that they intend to stay in the sector for the next 10 years, indicating some satisfaction with their career choices. When asked about their career goals for the next 5 years, most employees stated that they want to get promoted to a higher position in their current organization (26.7%), while others stated they want to grow their skills in their current role (25.5%). These findings indicate a relatively high level of commitment by employees in the sector.



**Figure 12** - What are you hoping to achieve in your career in the next 5 years? (Source: Skills Bahrain Employee Survey, 2021)

In another survey question, employees were asked if they felt they understood the career pathways in the Financial Services sector. 80% responded that they know how to progress in their organizations. Of those who responded negatively, the main reason was 'the approach to progression doesn't seem to be consistent' in their organization (33%) and 'there is no system for sharing this information in my organization' (29%). This indicates that some employees feel unclear about how to achieve their career goals in their organizations. Transparency of career pathways is missing and yet critical when planning for upskilling and reskilling in the sector.

#### **The Development of Career Maps and National Occupational Standards for Bahrain**

As the Financial Services sector has evolved and more closely aligned its rules and regulations to international standards, so have the job roles and the expectations of requirements for job roles. The following provides an analysis of jobs in the sector. For more details on the Career Maps please see the publication 'Financial Services Sector Career Pathway Maps'.

#### **The Process of Analyzing Jobs**

One of the key aspects of this Sector Skills Report is to identify specific jobs across the sector and analyze how they are changing in nature. For this purpose, a sector career map was created that groups jobs by Job Family and job title. Financial Services Sector Career Pathway Maps are intended to represent the current and future jobs in the sector in Bahrain, not an organizational hierarchy with the aim to capture as many jobs as possible as they relate to different categories in the sector.

#### **The Value of Job Mapping**

Developing a comprehensive mapping of jobs across the sector enables employers, HR, training and career guidance professionals, as well as individuals to see the skills-sets needed at each level within a given Job Family, and where upskilling is required, both in terms of core and technical skills. Individuals from outside the sector can identify from the map what it takes to enter the sector. Those already working in the sector, can view what their career progression pathways could look like, and plan their learning and development accordingly. Career maps help employers and HR professional plan their recruitment, identify skills gaps, and

develop structured learning journeys for their employees linked to performance management. Training professionals gain an insight into up-to-date industry requirements from career maps and can therefore enhance their programmes. Careers advisors can use the maps to support individuals to make informed choices about career pathways.

#### The Development Process

To create a sector career map for Bahrain, a number of international benchmarks were used to provide baseline information on

jobs in the sector. The Singapore Financial Services sector, for example, has a particularly well-established skills system with well researched documentation, drawn from aspects of the United Kingdom, USA and other well-established economies. To ensure the map represented the sector, it was taken to 18 different Financial Services and Insurance Institutions and refined to represent the sector in Bahrain.

The process of building the Bahrain version of the map is outlined below:



Figure 13 - Development process for Bahrain version of career pathway maps for Financial Services Sector

To align the maps more closely to Bahrain it was reviewed by a number of Bahrain sector representatives. The Career Pathway Map would be represented by 3 or 4 levels of job hierarchy, which may be amended as the sector grows in Bahrain. The identification and analysis of jobs in the sector to anticipate how they might evolve in the future is one of the key aspects of this report.

#### Occupational Standards (National Occupational Standards, NOS)

For each of the jobs on the map, a National Occupational Standard is developed to provide an overview of the job, and the skills and behaviors required to do the job well. The National Occupational Standard for each job is measured against numerous local and international benchmarks to ensure it reflects the job requirements for Bahrain. The development process is described in the diagram below.

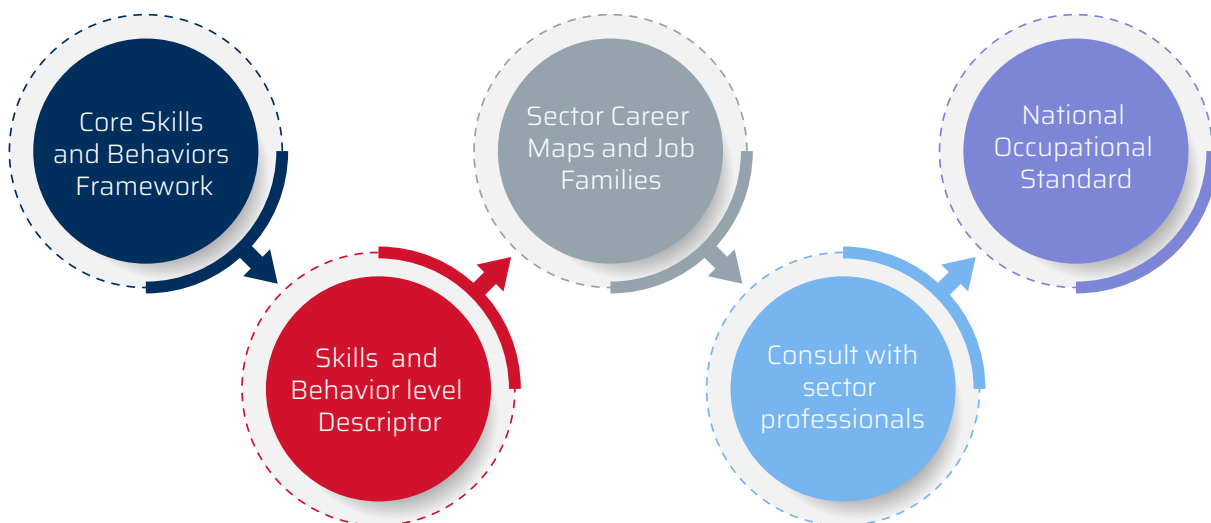


Figure 14 - The National Occupational Standards Development Process

The draft version of the National Occupational Standards for each job is grouped into families of jobs and taken to experienced professionals in the industry for further consultation and clarification.

Also included in the National Occupational Standard is information on the job entry requirements, career pathways, and the qualifications and training needed to develop on the job, including CBB controlled function compliance training. Each

National Occupational Standards outlines the required core skills and behaviors required to perform efficiently. These are outlined in the Core Skills and Behaviors Framework, which includes 16 core skills required for all employees in the Financial Services Sector. The Framework is described in further detail in the next chapter.

The following is an example of a National Occupational Standard for the role of Compliance Analyst.

### Example of a National Occupational Standard for a Compliance Analyst job

**JOB TITLE: Compliance Analyst**

**JOB FAMILY: Compliance Risk and Legal**

**ALSO CALLED: Middle Office Analyst**

#### Job description:

The Compliance Analyst maintains the execution of controls, compliance check and compliance processes. They perform tasks according to the organization's policies and procedures to ensure regulatory compliance and escalate any issues and risk in compliance controls to the management when needed. They assist in keeping compliance processes updated and conduct research to prepare materials for compliance reporting to the regulator and the management.

The Compliance Analyst also supports in implementing new regulations and training internal stakeholders with regard to any changes or modifications to existing regulations.

They implement internal control guidelines in accordance with the requirements of the regulators and the processes of the organization. This role is a CBB monitored controlled function with Training and Competency requirements outlined in CBB Rulebook for this role.

Job Outcome
Support the testing and implementation of risk and compliance frameworks in accordance with the organization's policies and regulator's requirements.
Educate and train internal stakeholders on the changes in internal controls and the regulatory control requirements.
Coordinate with internal stakeholders to facilitate the execution of compliance reviews, audits and regulatory examination of those reviews.
Document and assist in preparing compliance assessment and compliance monitoring,
Distribute compliance related memos and communications.

Technical Skills*	Level
Compliance Mindset Development	3
Data Collection and Analysis	3
Ethical Culture	3
Monitoring and Surveillance	3
Regulatory Compliance	3
Research and Information Synthesis	3
Risk and Compliance Reporting	3
Risk Management	3
Stakeholder Management	3

Skills and Behaviors	Level
Critical Thinking	3
Process Optimization	3
Collaboration and Influence	3
Commercial Awareness	3
Finding and Using Data	3

#### Career Pathway

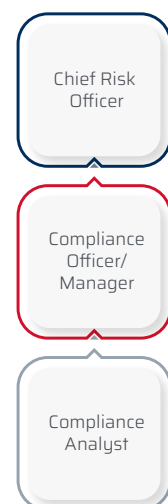
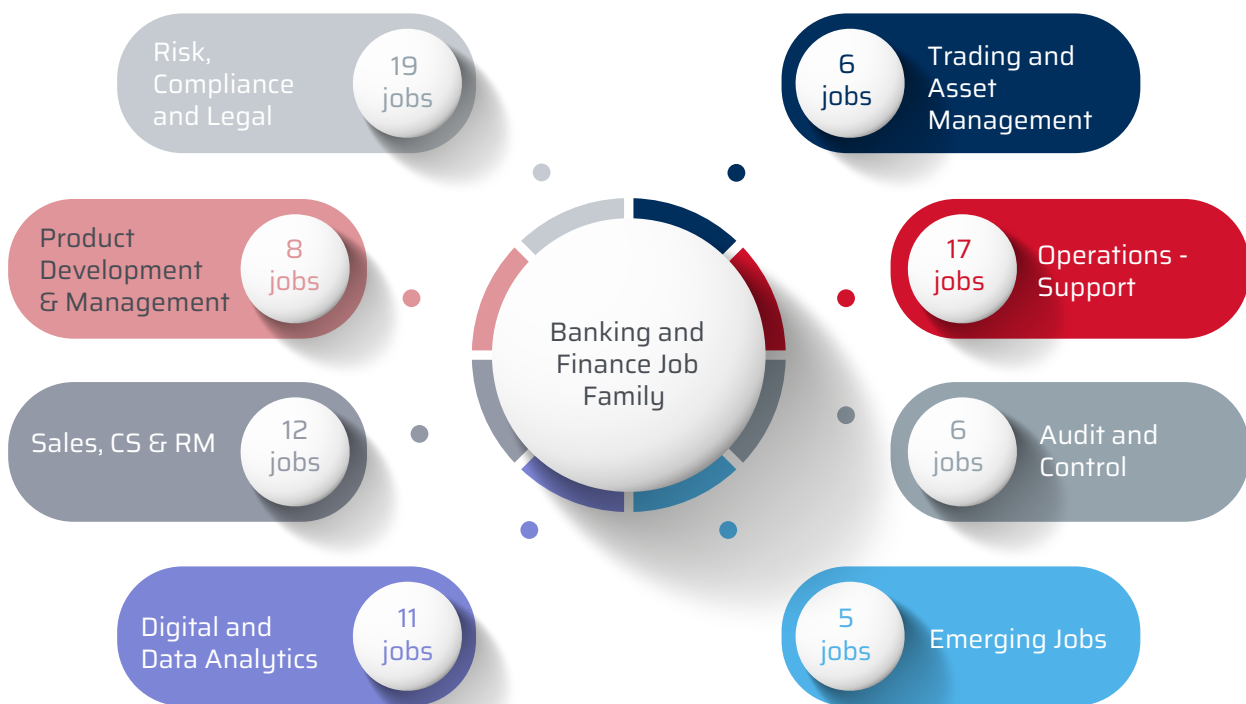


Figure 15 - Example of a National Occupational Standard

Each National Occupational Standard outlines the core skills and behaviors required to do the job well. These are outlined in the Core Skills and Behaviors Framework which includes 16 core skills required for all employees in the Financial Services Sector. The Framework is described in further detail in the next chapter.

### Job Families in the Bahrain Financial Services Sector Career Pathway Maps

The following illustrates the Job Families and jobs within it on the Bahrain Career Pathway Maps. For the full Job and Career Map, refer to the supplementary publication 'Financial Services Sector Career Pathway Maps'. This section provides a brief summary of each Job Family on the map and how drivers of change are impacting this Job Family.



#### Risk, Compliance and Legal

There are 19 jobs in this Job Family. All of the senior roles, and some of the mid-level roles are CBB regulated 'controlled functions'. This means they are required to follow the related CBB rulebook for their licensing categories on the job holder's qualifications, training and experience. All career pathways in this Job Family require regulatory Professional Certification to progress to higher roles. This Job Family requires niche technical skill development to understand the intricacies and requirements of being a locally, regionally, and internationally compliant organization in a globalised sector.

The future of this Job Family will see AI and machine learning help run complex modelling and risk scenarios' with speed, accuracy and detail. Real time information can support monitoring against risk indicators allowing for rapid response. Advanced analytics can support AML with analyzing patterns and trends in data triggering alerts. Every part of this Job Family will be enhanced by the addition of data analytics and the skills of mining, extracting, cleaning, verifying and analyzing data<sup>29</sup>. Additionally, digitalization will help this Job Family with reporting as RegTech frameworks become centralized and the terminologies and language of regulation reporting can be automated<sup>30</sup>. Another area of increasing importance for this Job Family is the risks posed by ESG challenges, in particular climate change as it changes risk associated with asset and investment portfolios.

\* 'Job Family' is a group of jobs within the same occupation. This is part of the job analysis aspect of job design and helps to identify the groups of skills and knowledge needed for a specific group of jobs. (Source: [www.shr.com](http://www.shr.com))

## Risk Legal and Compliance

<b>Risk of disruption and job loss to this Job Family</b>	<ul style="list-style-type: none"> <li>• A high risk of disruption as AI and sophisticated Machine Learning algorithms will replace much of the manual risk and fraud detection work.</li> <li>• Automation will improve processes and speed up compliance and reporting</li> <li>• RegTech will harmonise reporting to CBB</li> <li>• It is anticipated that between 50-80% of the jobs in this Job Family will change in the next 5 years</li> </ul>
<b>How this disruption will impact this Job Family</b>	<p>This Job Family will see significant improvements to speed and accuracy of risk and compliance due to digitalization. Many current job roles will disappear and there will be fewer people working in this Job Family in the future. The focus of the emerging Job Family will be on complex problem solving and bringing intelligence and commercial insight to data. An understanding of how data is used in the Job Family will become essential.</p>
<b>Current skills – skills range from mid-level to senior level</b>	<ul style="list-style-type: none"> <li>• Ethics</li> <li>• Analyzing</li> <li>• Critical thinking</li> <li>• Commercial awareness</li> <li>• Process optimization</li> <li>• Active learning</li> <li>• Technical risk and compliance analysis and reporting skills</li> </ul>
<b>New skills needed at a higher level</b>	<ul style="list-style-type: none"> <li>• Ethics</li> <li>• Analyzing – high level analysis of data to find meaning</li> <li>• Critical thinking – complex problem solving</li> <li>• Commercial awareness</li> <li>• Process optimization</li> <li>• Machine learning specialist</li> <li>• Active learning – Rapidly develop insight into specialist risk areas e.g., impact of SDG and climate change</li> <li>• Technical risk and compliance analysis and reporting skills</li> <li>• Emerging business models risk areas – APIs, integration, vendor relationships, etc.</li> <li>• ESG Awareness</li> <li>• Finding and using data</li> <li>• Data science</li> </ul>
<b>Priority for reskilling</b>	<p>This Job Family requires significant reskilling towards data science and its application in the risk and compliance function. In addition, 'Active Learning' and 'ESG Awareness' skills will need to be applied to new risk areas such as SDGs, climate change and crypto assets.</p>

*'I started as a product manager before the term was even known. Product management requires that you have an understanding of the banking as a whole.'*

- Executive Manager

### Product Development and Management

This career map has 8 different roles. This Job Family is about product research, product development, product positioning, product delivery and product marketing. It is one of the key areas for innovation and application of data insights. It is recognized that the nature of these jobs looks very different based on the categories of the sector and the specialist knowledge needed for different products, however, the skills and behaviors needed to develop and manage products are similar, therefore the groups of occupations here are around similar skills and behaviors needed to do a job well.

This role has traditionally been based on knowledge of the institution and specialist product areas. However, in the future, more time will be spent on using data insights to tailor products more specifically to customers' needs. Additionally, some companies in the sector are housing similar product development jobs within their FinTech or innovation units, and looking at how to leverage open banking and TPP for new products and services. Product positioning and monitoring will benefit from real time data insights to allow for speedy market reactions to be gauged and digital product positional and marketing will provide more focused channels to customers.

#### Risk of disruption and job loss to this Job Family

Low risk - This Job Family is likely to increase in importance as the focus on innovation, CX and more specific tailored products are based on enhanced customer insights brought about by data analytics and customer centric product ideologies.

#### How this disruption will impact this Job Family

This Job Family will move from traditional product knowledge to a deep understanding of data analytics and of FinTech business models and how to integrate them with institutional capability to meet customers' needs.

#### Current skills - skills range from mid-level to senior level

- Analyzing
- Critical thinking
- Commercial awareness

#### New skills needed - all skills needed at a higher level

- Analyzing - high level analysis of data to find meaning
- Critical thinking - complex problem solving
- Emotional intelligence - customer empathy
- Commercial awareness - thorough product knowledge
- Innovation & creativity
- Finding and using data
- Data science
- Machine learning specialist

#### Priority for reskilling

This Job Family requires significant reskilling towards data science, data analytics, innovation models and customer empathetic design

*‘Competing on service and quality is what differentiates us, and we have the right talent and resources, but there is big scope for improvement in terms of service delivery.’*

- Executive Manager

#### Customer Service, Sales and Relationship Management Job Family

There are 12 jobs in this Job Family that cover most of the customer facing roles across the Sector. These jobs have traditionally been entry jobs and have an emphasis on interpersonal skills. The breadth of additional commercial and product understanding will vary across different roles with a bank teller having a transactional relationship with customers to a corporate banker who has a more in-depth relationship with clients. This means the skills for differ

roles in the sector are very similar, but the level of proficiency of the skill may differ between the roles and hierarchy of this Job Family.

The future of this Job Family will see most entry level jobs disappearing as AI, automation and chatbots support customers with routine enquiries. Instead, the focus of the Job Family will be on stronger relationship management and tailored products for customers.

#### Risk of disruption and job loss to this Job Family

A high risk of disruption as AI and automation replaces much of the manual work. It is anticipated that between 50-80% of the jobs in this Job Family will change in the next 5 years.

#### How this disruption will impact this Job Family

This Job Family will see a convergence between customer service, sales, and relationship manager to create a ‘super-agent’ who will use data insights to tailor products and services and ensure excellent customer experiences.

#### Current skills – skills range from mid-level to senior level

- Emotional intelligence – including communication and relationship management
- Collaboration and influence – to support sales
- Commercial awareness (product knowledge)
- Process optimization – follow KYC, risk and compliance processes

#### New skills needed – all skills needed at a higher level

- Emotional intelligence – including communication and relationship management
- Collaboration and influence – to support sales
- Commercial awareness (product knowledge)
- Process optimization – follow Know Your Customer (KYC) risk and compliance processes
- Finding and using data – to visualize data for tailored sales and services
- Technology use – digital trouble shooting for kiosk branches

#### Priority for reskilling

All skills need to be developed to the next level to move a customer service agent to a relationship manager. Data insights will be required for all future roles

### Digital and Data Analytics Job Family

This Job Family is more complex than traditional insights or business analytics role. It represents 11 jobs within Financial Service Institutions. Depending on the business model of institutions, some of these jobs

may be outsourced to expert vendors while others may be embedded within the business units. All jobs in this Job Family are future oriented.

<b>Risk of disruption and job loss to this Job Family</b>	No risk – this is an emerging Job Family that is likely to grow across institutions in Bahrain.
<b>How this disruption will impact this Job Family</b>	Demand for the expertise needed in this Job Family is anticipated to increase as data scientists and digitalization professionals are sought after in the market. Wages will likely increase as the demand for talent becomes competitive.
<b>Current skills – skills range from mid-level to senior level</b>	<ul style="list-style-type: none"> <li>• Collaboration and influence – to work with business units</li> <li>• Commercial awareness – to understand how data supports the business</li> <li>• Finding and using data</li> <li>• Technology use</li> <li>• Data science</li> <li>• Machine learning specialist</li> <li>• Active learning – to mentor business units on how to better use data insights</li> </ul>
<b>New skills needed – all skills needed at a higher level</b>	Depending on the business model of the organization, data analytics might be embedded within the business units allowing for greater knowledge transfer between the commercial business and technical capability. New skills will be developed in response to new technology.
<b>Priority for reskilling</b>	Developing data science and digitalization capability from within business units across the organization rather than as a stand-alone service unit.

### Trading and Asset Management

This Job Family has 6 jobs and covers the assets management and trading function. The jobs in this Job Family tend to sit in different parts of a Financial Institution depending on the structure of the organization. The roles in this Job Family are highly technical, requiring the ability to understand complex modelling as well as insights into international markets and trading. This Job Family has been significantly automated for the past 30 years since the rise of technology allowed automatic trading and access to real time information, therefore eliminating manual processes.

In the future, sophisticated trading programs will eventually require limited human oversight. Trading algorithms will allow less time to be spent on trading model validation. Transactional documentation can be transformed through the use of blockchain. An emerging area of importance for this Job Family is around ESG due to the nature of risk associated with it.

#### Risk of disruption and job loss to this Job Family

Medium risk – human oversight will also be required for this Job Family; however automation minimizes the number of people working in these roles.

#### How this disruption will impact this Job Family

Highly skilled senior professionals with advanced quantitative skills will continue to be required by this Job Family. Automation will continue to reduce the requirement for manual processes leaving humans to undertake complex problem solving.

#### Current skills – All jobs in this Job Family are mid to senior level

- Commercial awareness
- Critical thinking and complex problem solving
- Finding and using data
- Technology use
- Programming
- Data science
- Quantitative skills

#### New skills needed from a mid to senior level, similar skills at a more advanced level

- Commercial awareness
- Critical thinking and complex problem solving
- Finding and using data
- Technology use
- Advanced programming
- Advanced data science
- Advanced quantitative and modelling skills
- Machine learning
- ESG Awareness

#### Priority for reskilling

- Highly technical data science and quantitative skills
- ESG Awareness

*‘Some processes have changed with COVID, which has created new opportunities. Long processes have become much shorter, and approvals can be received very quickly.’*

- Line Manager

#### Operations- Support

This Job Family has 17 jobs that represent the back-office support for different parts of Financial Institutions. It is heavily driven by processes and the institutions' Standard Operating Procedures (SOP). With all institutions looking to reduce standard processing times and layers of bureaucracy in approvals and controls, process

analysis and redesign are critical to improving efficiency and reducing costs in this Job Family. Digitalization strategies have seen old legacy Information Technology (IT) systems reconfigured to allow for the integration of RPA, AI and other digital tools to enhance the streamlining of processes for greater efficiency.

<b>Risk of disruption and job loss to this Job Family</b>	Medium Risk - this Job Family is likely to reduce in headcount due to RPA and AI streamlining operational processes.
<b>How this disruption will impact this Job Family</b>	Increased level of expertise around process optimization, digitalization, and data analytics
<b>Current skills – All jobs in this Job Family are junior to senior level</b>	<ul style="list-style-type: none"> <li>• Commercial awareness</li> <li>• Critical thinking</li> <li>• Process optimization</li> <li>• Technology use – digitalization</li> </ul>
<b>New skills needed – jobs in this Job Family are junior to senior level</b>	<ul style="list-style-type: none"> <li>• Commercial awareness</li> <li>• Critical thinking</li> <li>• Advanced process optimization – lean six sigma</li> <li>• Technology use – digitalization and RPA</li> <li>• Finding and using data – efficiency data insights</li> </ul>
<b>Priority for reskilling</b>	<ul style="list-style-type: none"> <li>• Process optimization</li> <li>• Finding and using data</li> <li>• Technology use</li> </ul>

### Audit and Control

This Job Family has 6 jobs. These jobs are responsible for the internal systems, governance and risk assessment of institutions. Both job lines in this Job Family report to either the CEO or an audit committee. Internal Audit is a separate function from the compliance function as outlined in the Risk, Compliance and Legal Job Family to

ensure independence and integrity of the audit function. The Chief Financial Officer is the internal financial controller ensuring the integrity of internal financial systems and reporting. CBB govern the appointment of the Chief Financial Officer as a Controlled Function role.

#### Risk of disruption and job loss to this Job Family

Medium risk – all aspects of internal audit will be impacted by the use of RPA and AI in much the same way as the risk and compliance functions. Digital will bring about new audit considerations and impact the nature of the audit activities and reporting.

#### How this disruption will impact this Job Family

This Job Family has always required high level professionals. However, there are new skills and understandings of compliance that digitalization brings

#### Current skills – All jobs in this Job Family are senior level

- Commercial awareness
- Critical thinking
- Ethics
- Technology use

#### New skills needed – jobs in this Job Family are junior to senior level

- Commercial awareness
- Critical thinking
- Commercial awareness
- Ethics
- More advanced technology use
- Finding and using data
- Emerging business models audit areas – APIs, integration, vendor relationships etc

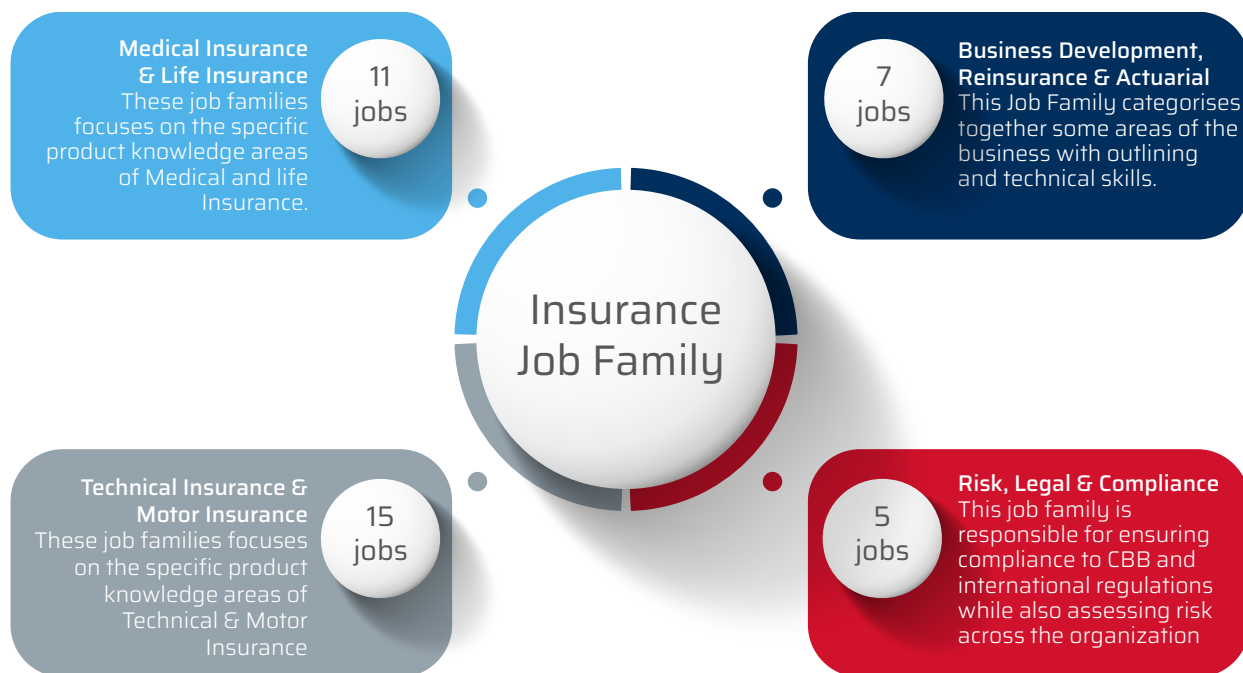
#### Priority for reskilling

- Process optimization
- Finding and using data
- Technology use

### Bahrain Insurance Career Pathways Map

The Bahrain Insurance Career Map outlines four Job Families containing 38 jobs. Many of these overlap with the Financial Services map in terms of the job outline and

the skills and Behaviors required to do the job, but the insurance map has different job titles for many of these roles.



For details of each of the jobs please see the supplementary publication 'Financial Services Sector Career Pathway Maps'

### Emerging Jobs in the Financial Services Sector

According to research by the World Economic Forum there are a number of jobs that will become more important in the sector in the future. The skills needed to do these emerging jobs have been highlighted in the different Job Families. The emerging jobs in the sector are specifically related to digitalization and include:

**Cybersecurity jobs** - These highly technical roles are needed across the sector and are one of the most sought-after jobs globally. These jobs require ICT technical skills, programming, understanding systems, commercial awareness, technical skills in threat detection, and reporting and compliance skills

**UX/UI jobs** - These are technical and design related jobs that are needed to bring human centric design principles to technology products. The role is essential to ensure the usability of digital products.

**Blockchain specialists** - While these are not currently in high demand in Bahrain, it is anticipated that roles relating to the design, programming and usability of blockchain-based products and services will be needed in the future.

**Machine Learning/AI specialists** - These are Job Families included within the outline of the data and digital job families, but they are roles that are based on deep technical skills. Machine Learning (ML) is developing machines and systems capable of thinking and learning autonomously and adapting to new data to perform tasks. Artificial Intelligence (AI) is a digital or computer robot that can perform analytical tasks with the same logic as a human<sup>31</sup>.

**ESG Reporting and Risk Specialists** - Specialized roles in ESG and sustainability are emerging across the sector. These roles focus on ESG and sustainability data collection and reporting and ensuring ESG factors are considered throughout the organization.

Data Science and Digitalization job roles are also considered emerging jobs. These have already been discussed within the digital and data Job Family.

### CBB Controlled Functions

As part of maintaining integrity in Financial Services in Bahrain, the CBB closely regulates specific job roles across the sector. Called 'Controlled Functions', the regulations are laid out in the CBB rulebook. Included in the Rulebook is the Training and Competency Module which outlines the requirements for each of the Controlled Function jobs and states the experience, qualifications and training expected for each of the Controlled Function roles.

While a Degree is usually preferred in practice, the CBB provides scope for alternative pathways into the Controlled Functions through a statement outlining entry requirements for each

Controlled Function job in the Training and Competency section of the Rulebook, an example being: 'Hold a degree from a university at bachelor level or higher or a relevant professional qualification.'

All licensed companies must seek approval from the CBB to appoint people to Controlled Function job positions. Movement between different competitors for Controlled Functions was mentioned by survey respondents as a challenge, as good people are constantly being headhunted by competitors.

### Critical Challenges Impacting Controlled Functions

According to the Skills Bahrain survey respondents, leadership development and building capacity at the Board of Director level are critical to support business growth across the sector in Bahrain. Whilst the CBB would like to see more Bahrainis filling Controlled Function roles, it is a challenge to find ready-made talent with the right skills and experience quickly to meet the immediate needs of the sector, which points to the need for effective succession planning. This situation leads institutions to recruit internationally for many Controlled Functions. One of the HR Managers describes this specifically:

*'The challenge is having peace of mind in our organization to acquire the best talent in the market, and there is a challenge in finding the best in the market (for Controlled Functions). The regulators' requirements are changing. We don't have time to train people, we need people now'.*

CBB data highlighted 93 applications by the sector for expatriate appointments over the last three years. The majority of these appointments were for Chief Executive and Compliance Officer roles in addition to the Heads of Function for various roles. The areas for expatriate recruitment outlined by the CBB align to one of the 'hard to fill vacancies' identified by HR Managers in both the survey and focus groups. Jobs within Risk and Compliance were cited as particularly difficult roles to fill with Bahraini staff; they are also roles with high turnover.

### Conclusion - The Changing Nature of Employment in the Sector

The profile of employment in the sector is changing to a younger demographic with an increasing number of women joining the workforce. The nature of jobs is also changing with many roles across the different areas of Financial Services being automated and new skill requirements around Finding and Using Data and Technology Use being fundamental core skills for the future of all job roles in the sector. For some of the Controlled Functions, particularly within the Risk and Compliance Job Family, there is a pressing need to fill these roles with national talent, which highlights the need for effective succession planning including training linked to the relevant career pathway.

# 3

Chapter

## Entry Routes and Recruitment into the Financial Services Sector



*I would have chosen a career in IT if I had known that those jobs would have been in high demand. There weren't enough studies or guidance during my time to study future job market demands. I can see there are still people with majors who fall under this category. We are seeing market saturation and not enough openings.*

- Employee

This Chapter analyzes the broader education and training ecosystem in Bahrain in the context of how it supports the entry and development of talent for the Financial Services sector. Currently, the vast majority of employees in the sector hold a Bachelor's or Master's degree, so the role of Higher Education is an important factor when analyzing skills. However, for the sector to respond to the changes outlined in Chapter One, a variety of entry and progression routes in and through the sector are needed. In addition, transparency and advice about how to move both within and from outside the sector is important to allow people to make informed career choices.

#### Pathways into the Financial Services Sector

According to the Skills Bahrain survey, the majority of employees came from higher education, with less than 3% coming directly from high school. The main areas of study for those who came into the sector from higher education were 'Business Administration and Law' (68%) followed by 'ICT' (14%).

**40% of employees came into Financial Services from other sectors – the most popular other sectors were retail, ICT and telecommunications**

#### Lack of Career Guidance

When asked if they would change their choice of study, 26% of respondents said they would if they had the chance to choose again. The main reason given was 'I was not clear about my passion at the time', followed by 'I didn't have enough information about my career choices'. 40% of employees responded negatively when asked if they felt they had a good understanding of the career opportunities in the Financial Services sector when they got their first job. This indicates many employees in the sector felt there was a gap in career advice and information about higher education choices, and that they could have been better informed about the sector before pursuing employment.



### Reasons of Changing The Field of Study

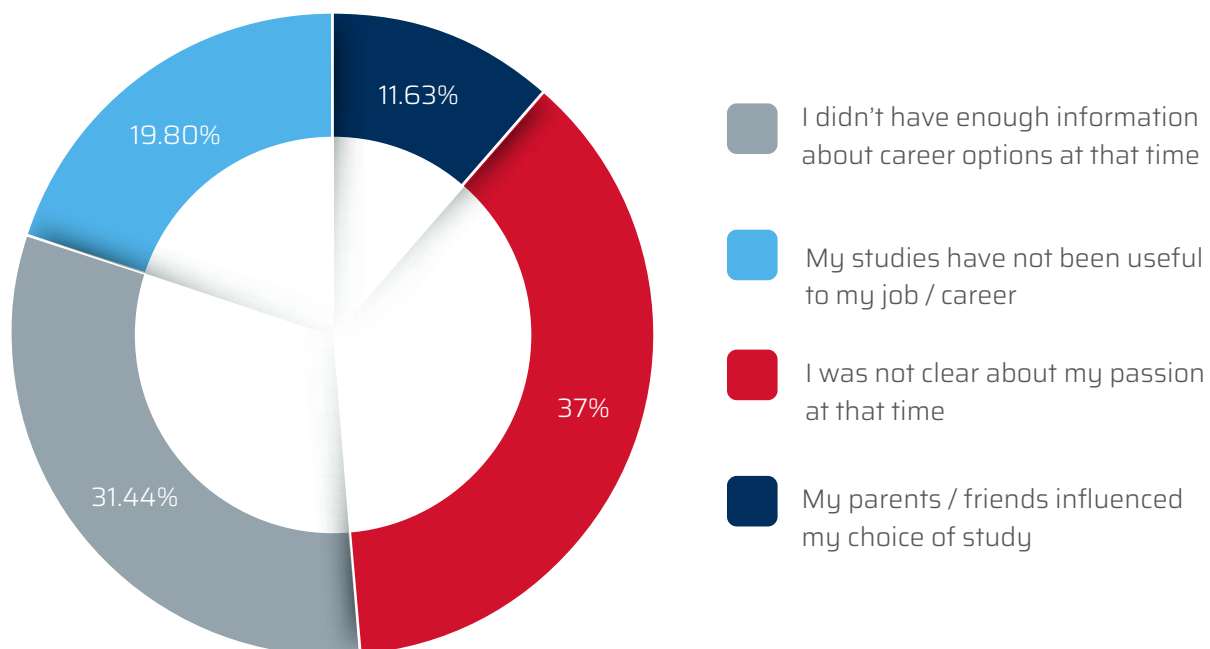


Figure 16 - Why would you change your field of study? (Source: Skills Bahrain Employee Survey, 2021)

### Highest Educational Attainment and Entry into the Sector

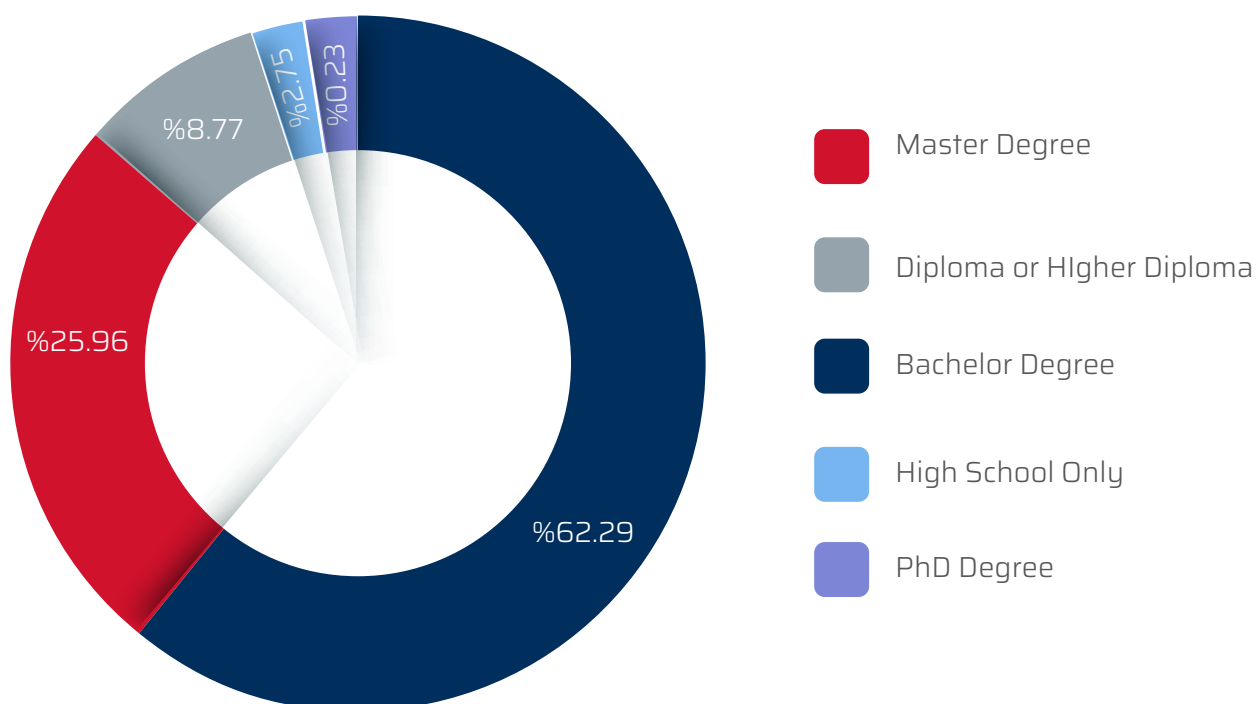


Figure 17 - What is your highest level of formal qualification? (Source: Skills Bahrain Employee Survey, 2021)

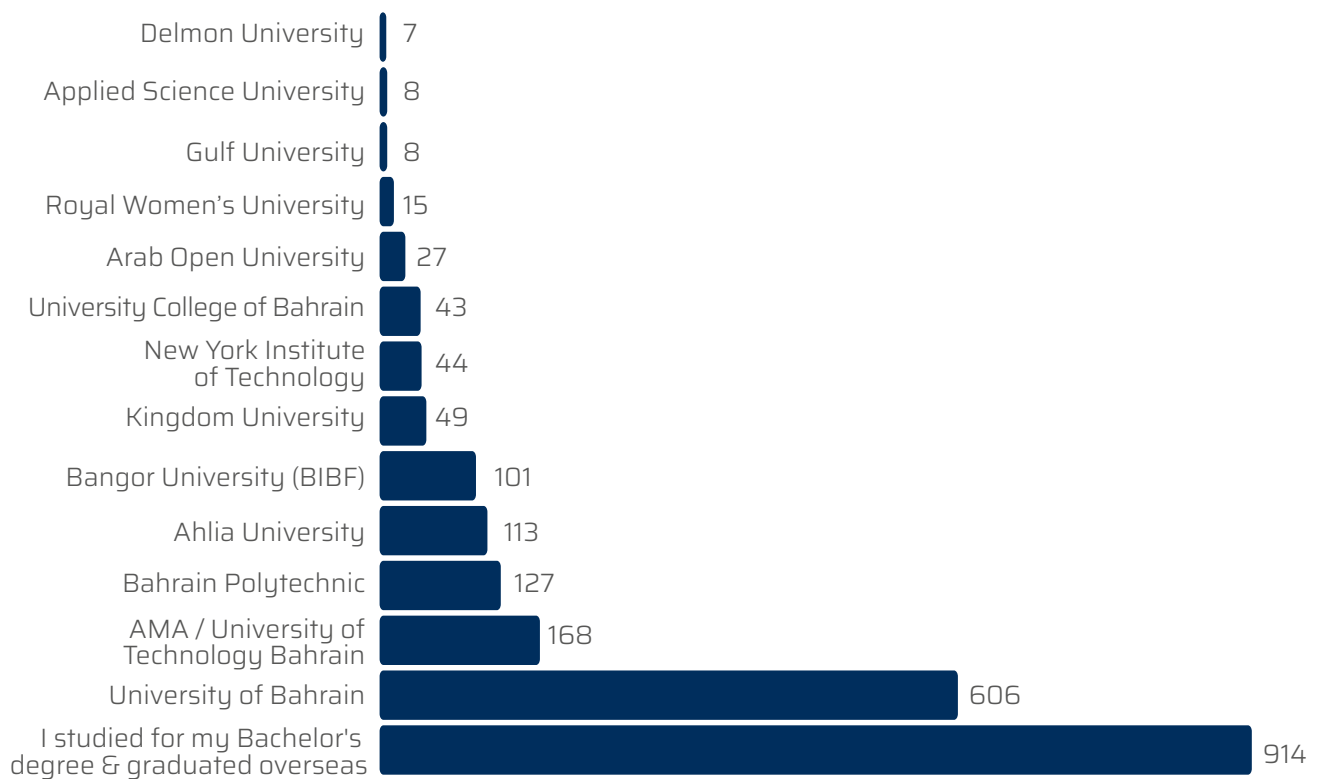


Figure 18 - University of graduation for employees with a bachelor's degree (Source: Skills Bahrain Employee Survey, 2021)

### Entry into the Sector - Higher Education Programming

Selection of higher education programs for entry into the sector remains critical until effective alternative applied learning routes open up. For young people and parents, selecting the right program is important, and it is also crucial that employers have the right information about each degree. The labor market continues to face an oversupply of Business Administration graduates from the private higher education sector.

### Entry into the Sector - Recruitment Assessments

A number of Bahrain Financial Institutions use the BIBF Assessment Centre to review candidates for recruitment or to identify high potential individuals. The BIBF Assessment Centre uses international standard testing tools such as 'Saville' assessment products. Assessment programmes are tailored to the specific needs of each Financial Institution, but the standard recruitment test includes the Saville Swift Aptitude Analysis test with equal weighting. The most appropriate norm group will be selected to produce results that state how the candidate is positioned next to their peer group in the region. The assessments are conducted at the BIBF's assessment centre under strict supervision to ensure the integrity of the test. The assessment is made up of the following components <sup>32</sup>:

At the end of the test, candidates receive a score for each section and an overall score. Each Financial Institution forms its own conclusion on what is a reasonable minimum score for their candidates. Analysis of the assessment centre recruitment data for nearly 630 candidates for one large Financial Institution revealed some interesting findings. The candidates were assessed for recruitment between March 2019 and November 2020. Of the 630 candidates, 83 were selected as having met satisfactory criteria, with a score over 50%, for recruitment into this Financial Institution. Further analysis showed that the majority received an overall score of 50% and above for all three tests. The following graph shows the average score for each aspect of the test.

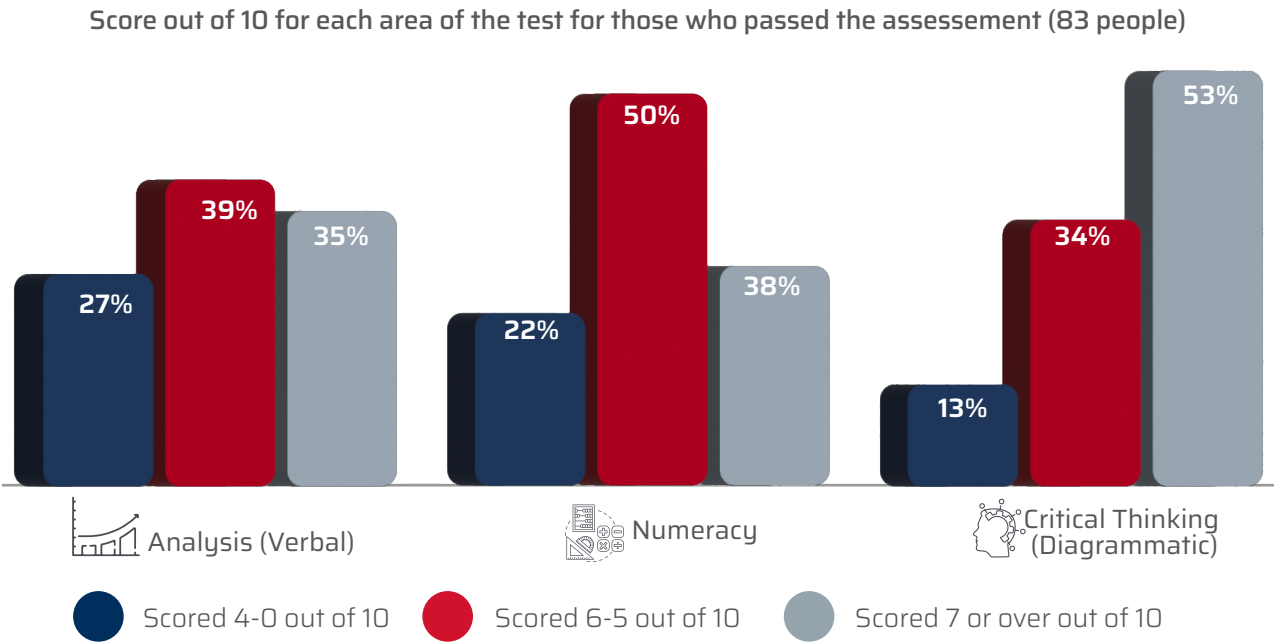


Figure 19- The assessment scores out of 10 for selected candidates (Source: An anonymous Bahrain Bank data, 2022)

The results show that the majority of candidates scored midrange for analysis and numeracy skills and higher range for critical thinking skills, with numeracy having the highest number of low scores. The remaining candidates achieved scores below 50% for their combined overall score. This was approximately 547

candidates. The following shows their scores.

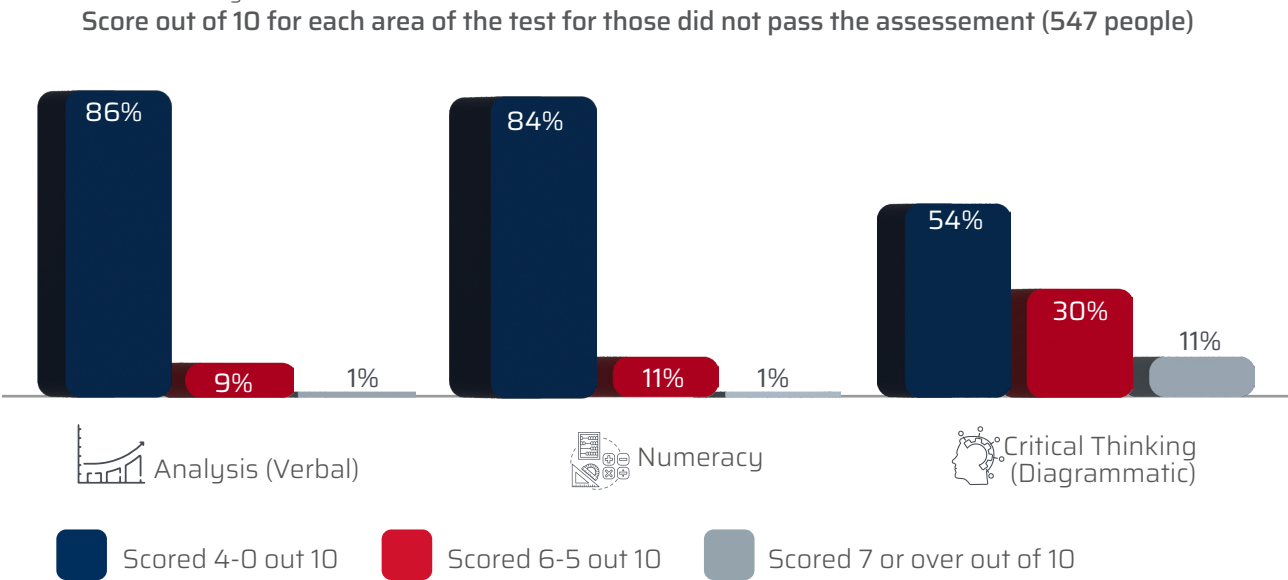


Figure 20 - The assessment scores out of 10 for candidates who were not selected (Source: An anonymous Bahrain Bank data, 2022)

The areas where the vast number of applicants score low numeracy and analysis are aligned to the skills gaps identified in our research findings as outlined in Chapter Five of this report. The fact that the vast majority of those who passed the test had some work experience is also important and supports the introduction of more work-based routes into the sector.

### Entry into the Sector - Call Centers, BPOs

Internationally, Business Process Outsourcing (BPO) companies, such as call center services, are a common entry point to a first job for school leavers or students. Many call center, customer service and sales jobs in the Financial Services sector in Bahrain are outsourced to BPO companies based either locally or abroad. Bahrain's three largest call centers employ nearly 850 people with employment levels fluctuating depending on the organizations' contractual arrangements.

According to the Skills Bahrain survey of employees in the three call center companies, 32% came straight into a BPO company out of high school (without a Bachelor's degree) and a quarter of all employees responded that their current BPO employer was their first job. 8% of employees had worked in Financial Services prior to their current jobs. 20% of the employees surveyed work servicing a client contract for the Financial Services sector, either as call center agents or sales agents indicating a level of expertise in the products and services offered by the sector.

16% of Line Managers currently working in BPOs had come from the Financial Services sector prior to their roles in the BPO. The Line Managers reported that, in their experience, the average length of time for an employee to stay working with the BPO is 1-2 years (48%) and the number one sector they see their employees move into is Financial Services (29%). These findings would indicate a good level of movement between the BPOs and Financial Services sector in both directions.

#### BPO SURVEY FINDINGS

- 69% of employees are under 30
- 67% worked with the same employer for 1-7 years
- 85% are Bahraini nationals
- 33% have a Bachelor's degree, 32% have high school only
- 11% were unemployed before their current jobs

*Source: Skills Bahrain BPO Survey, 2021*

### Conclusion – Entry into the Sector

Employers in the Financial Services sector have said that they can train for technical skills, but they need people who can think critically, problem solve and communicate well. International research on work skills confirms that these higher order thinking skills are critical for labor market and economic growth. It is apparent that some people are leaving Higher Education and entering the labor market without documented achievement of these skills. As highlighted in the 2018 Human Capital Report for Bahrain, there is still work to do on ensuring these higher order thinking skills are well embedded within Bahrain's education system to ensure the quality of graduates entering the labor market.

### Emerging Issues – Entry to the Sector

Higher education that feeds graduates into the sector should:

- Review and align their programs to the requirements as outlined in the recruitment assessment standards as an entry benchmark of what graduates' capabilities are when they join the sector
- Consider the extent to which programs adequately reflect the sector's core skills and behaviors and National Occupational Standards as embedded program outcomes
- Ensure that programs include some form of work experience or work-based learning

Create alternative vocational pathways from high school into the sector, that include on the job exposure and to involve employers in curriculum design.

- A national career guidance system is needed to make use of the up-to-date labor market intelligence and the tools produced by Skills Bahrain to support school leavers and those working in the Financial Services sector

The Financial Services sector, led by the CBB, supported by Skills Bahrain, should proactively work with education and training institutions to coordinate a range of career interventions from the sector.



Chapter

# 4

## Training for the Sector and Emerging Practice in Skills Development



This Chapter examines training delivery for the sector to date in the light of emerging jobs and associated skills requirements. It goes on to highlight how the approach to skills development is changing to meet new ways of working and new approaches for the future.

### Tamkeen's Support for Skills Development

Tamkeen is the main agency addressing skill gaps in the private sector in Bahrain, and is a critical contributor to skills reform in the Kingdom. Tamkeen was established in 2006 under Law Number (57) as part of Bahrain's national reform initiatives. During 2020 and the Covid-19 pandemic, most of Tamkeen's schemes stopped to focus efforts and funds on business recovery in response to the pandemic. Tamkeen has subsequently undertaken an extensive transformation of its offerings and services.

From analysis of Tamkeen data, it is apparent that Tamkeen funding has supported over 50 training providers in the market over the past 5 years. Although limited training has been delivered since the beginning of 2020, online training, which can be accessed internationally, has risen in popularity. It is anticipated that the landscape of the training sector in Bahrain will evolve accordingly.

### Tamkeen's Historical Investment in Training for Future Skills

Upon a review of its programs in 2021, Tamkeen has focused its new programming on addressing future skill gaps, such as with cybersecurity, data analytics and actuaries. Tamkeen has historically invested in a number of special projects to support the future skills needs for the Financial Services sector, which have so far reached 387 people. The following outlines some of the special projects supporting future skills in the sector:

Citi Technology Hub	Established in September 2021 as Citibank's global technology hub, the focus in Bahrain will be on engineering for Citi's flagship proprietary platforms, working to enhance execution and connectivity capabilities across FX trading and analytics systems <sup>33</sup> . The Centre aims at creating 1,000 coding jobs over the next ten years.
CFA's Graduates Internship Program	Launched in 2014, the internships include high quality training sessions by regional experts from Chapel House and Chartered Financial Analyst (CFA) Society. Most graduates from the internship program secure permanent employment in the sector.
Bahrain FinTech Bay Talent Program (BFB)	Developed in partnership with Georgetown University's McDonough School of Business- and international blockchain and AI academies. The FinTech Talent Program (FTP) is aimed at targeting an initial 50 participants over 6-Months. Based on the Tamkeen analysis of SIO data, 32 graduates (from 51) ended up with full time employment in Bahrain.

**Table 7** - Example of Tamkeen funded special projects addressing Future Skills (Source: Tamkeen)

### The Bahrain Institute of Banking and Finance (BIBF)

The BIBF is a semi-government training institute accredited through the CBB and dedicated to developing Bahrainis in the sector. It operates with seven academic centers, is Bahrain National Qualification Framework (NQF) registered, and is rated as “good” by BQA. The BIBF board is chaired by the CBB and led by executives in the sector. BIBF is the sole provider of levy funded courses focused on the CBB rulebook, as well as Professional Certificates and other training that is either self, institution, or government-funded. BIBF have made efforts to support the future growth of the sector with their Digital Transformation Academy, the Cybersecurity Academy, and Amazon Web Services (AWS) Cloud and Certified Blockchain Professional qualification.

In 2019, the BIBF developed a profile of recommended Professional Development routes for the CBB Controlled Functions based on the CBB Competency and Training modules in the Rulebook. The BIBF document also highlights the competence, skills and minimum qualifications for some of the roles. The professional development routes are broken down by Continuing Professional Development (CPD) masterclass, professional courses and open courses. It is evident from Tamkeen data that many of the CPD master classes are supported by the sector and not surprisingly, most programs recommended are in technical areas. Further analysis is required to understand the extent to which the core skills and behaviors identified by the sector are supported through BIBF’s suggested programme routes.

### Leadership Training

The sector invests heavily in Leadership training. Leadership skills have been identified as a priority for the future. The following assesses the extent to which a sample of the top 20 funded Leadership courses for the sector include aspects of future skills. This is based on publicly available information about the programs’ curricula.

It is important to note that the leadership skills identified in the Skills Bahrain survey as priorities for the future are “higher order” skills. These are typically developed over a long period of time and instilled during general and higher education through effective teaching methods. Generally, they are not developed through training programmes<sup>34</sup>. Residential leadership programmes may expose learners to new ways of seeing things which could help develop these skills, but unless the learning is reinforced, embedded and applied in the learner’s experience once the residential programme ends, it is unlikely to make a significant impact.

### Training Preferences and Priorities within the Sector

The Skills Bahrain survey provided some insights from Line Managers, HR Managers and Employees about training. When asked if they are able to find the training they need in Bahrain, the three groups of respondents gave slightly different answers. Fewer Line Managers responded positively to this question than HR or Employees. When asked why, the main reason given was ‘quality of training available’.

HR Managers	Line Managers	Employees
86%	77%	87%

**Table 8 - Those who answered ‘yes’ to the survey question ‘Are you able to find the training you need in Bahrain’ (Source: Skills Bahrain Line Manager Survey, 2021)**

The most popular reason for training, according to HR Managers, was to 'improve productivity'. HR Managers reported that 78% did not have qualified Learning and Development Professionals in their workplace. The following outlines some of the survey's key findings as they relate to training and development:

- Employees stated their preferred method of training is 'on the job guidance and training such as mentoring', meaning employees prefer more job-related training.

- Line Managers said their priority for training in the next 12 months was 22% Analytical/Problem Solving; 16% Interpersonal Soft Skills; 15% Technical job related; 12% Data Analytics.
- 42% of HR Managers felt having an awarding body for training is important with 78% saying they don't mind if this awarding body is from Bahrain or international.

Line Manager's priority for training in the next 12 months

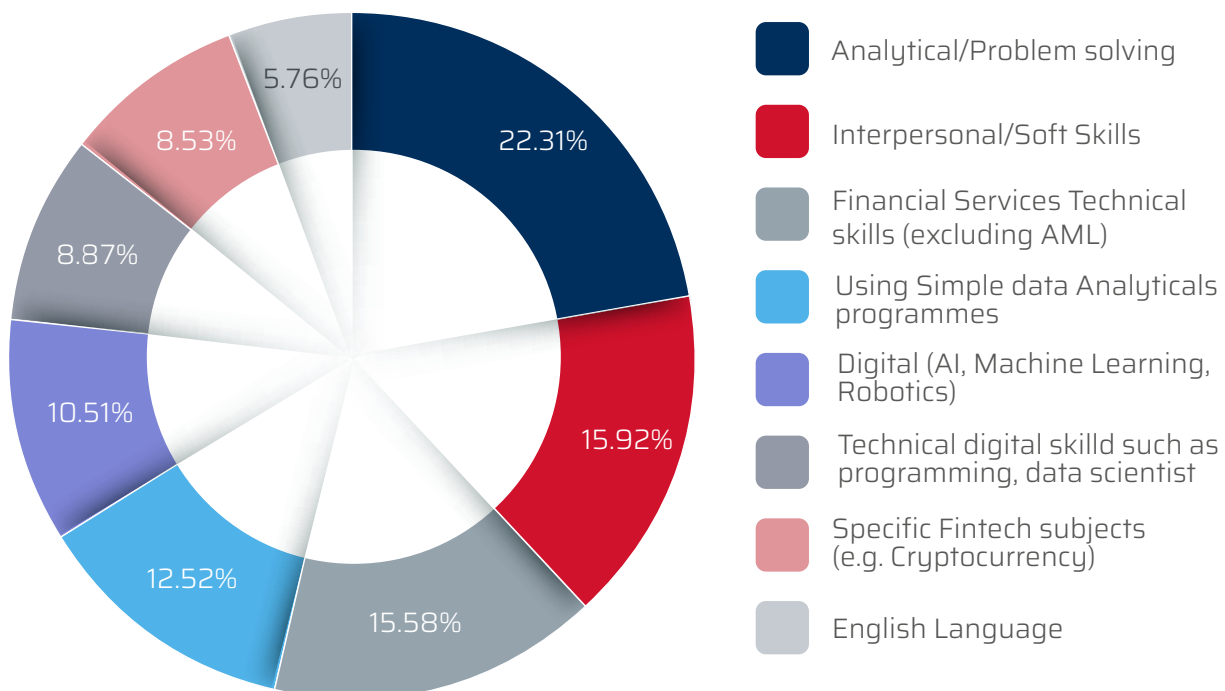


Figure 21 - Line Manager's priority for training in the next 12 months. (Source: Skills Bahrain Line Manager Survey, 2021)

### New Forms of Learning and Development - Nano Learning and Micro Credentialling

The survey yields insights into the amount and type of "nano learning" taking place across the sector and provides very positive insights into the motivation of individuals to develop themselves. UNESCO's education division highlight the importance of capturing nano, or micro learning as part of formal skill systems with micro credentials being essential to support the skills needed to enter the 4th Industrial Revolution <sup>35</sup>.

According to UNESCO a micro credential:

1. is a record of focused learning achievement verifying what the learner knows, understands or can do;

2. includes assessments based on clearly defined standards and awarded by a trusted provider;
3. has stand-alone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning; and
4. meets the standards required by relevant QA <sup>36</sup>.

The survey did not ask about credentialling as such, but about nano learning. Nano learning was described as "short specific online learning that is usually structured programmes focused on a specific learning area through platforms such as edX, Udemy, Coursera, LinkedIn Learning, Udacity, Intuition, Linda.com."

## Number of people who have completed micro/nano learning in the past 12 months

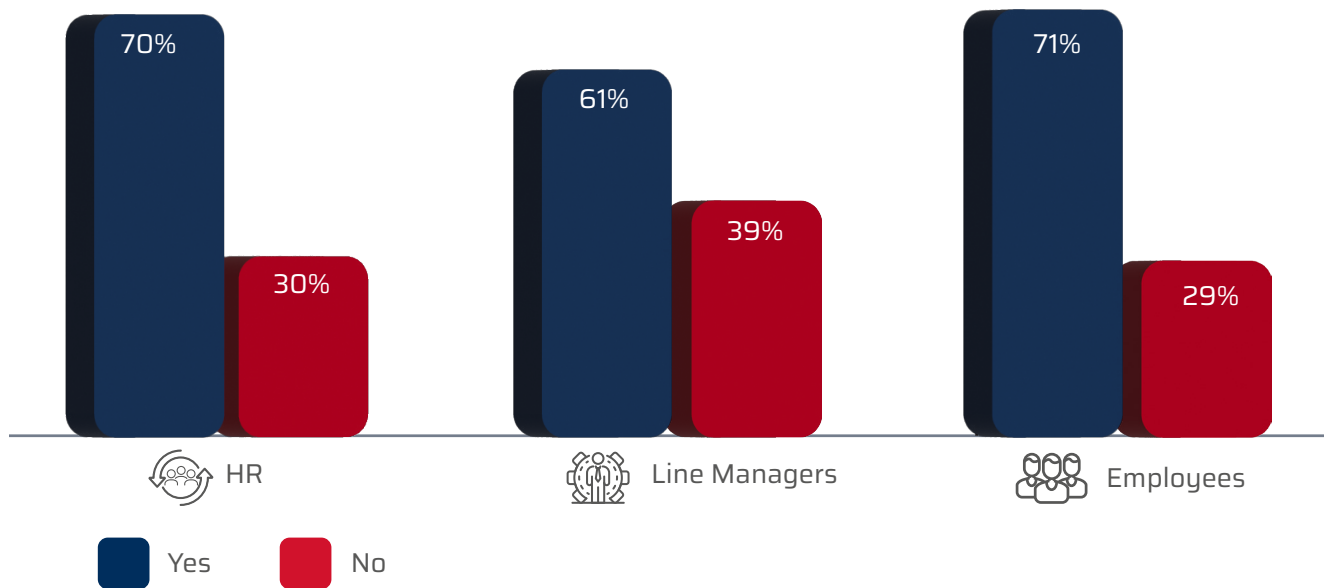


Figure 22 - Survey question: Have you completed micro/nano learning (Source: Skills Bahrain Employee Survey, 2021)

According to the survey, 39% of Line Managers, 30% of HR Managers and 29% of Employees had engaged in this type of learning. 28% of employees said they took this type of learning on their organization's LMS while another 23% completed theirs on LinkedIn Learning. Employees who did not do this type of learning describe many reasons for it, including 'the course is not relevant to my

## Micro Credential Recognition

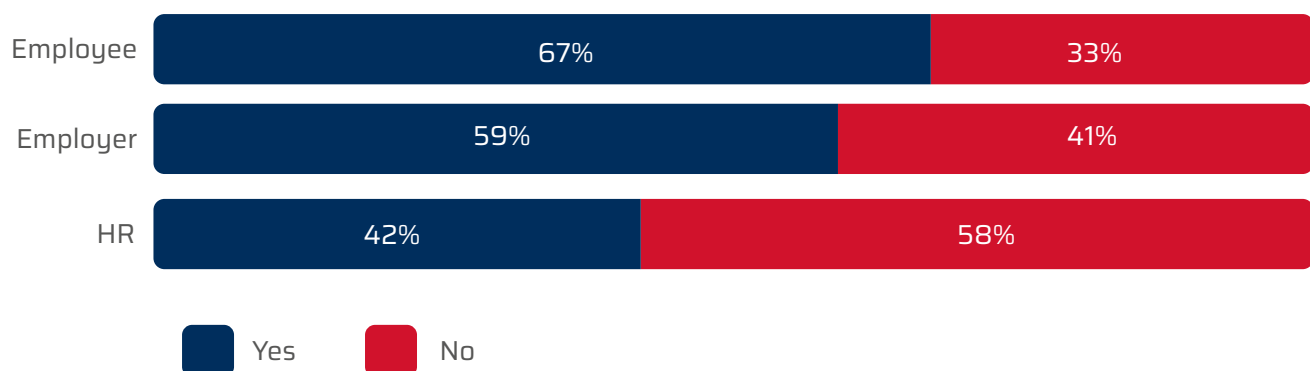


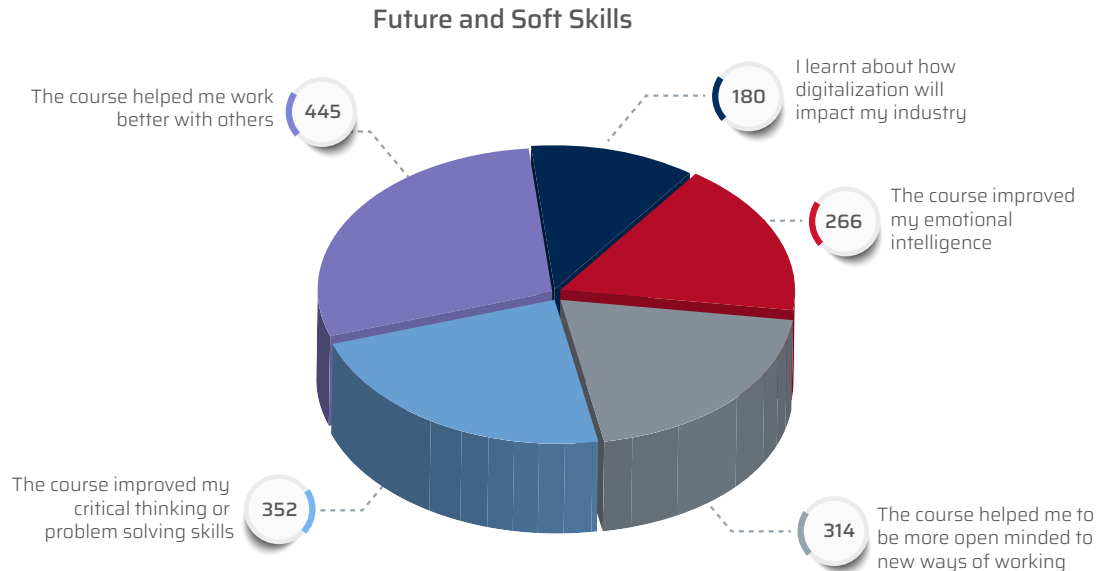
Figure 23- HR response to nano learning recognition (Source: Skills Bahrain HR Survey, 2021)

job' (34%), 'I don't have time' (18%) and 'my employer doesn't recognize it' (16%).

Interestingly there was a difference of opinion about whether this type of learning was formally recognized by employers. 59% of Line Managers and 67% of Employees believed nano learning was formally recognized in their organization, whereas only 42% of HR Managers stated that they are formally recognized. The reasons for non-recognition were given as: 'it doesn't offer a formal qualification' (40%) and 'I can't show how it relates to my job'.

Of the employees who completed Nano learning, 89% felt it was an effective way to learn and 75% said they have applied their learning to their job. When looking at the application of soft skill

learning, respondents stated that nano learning had helped them 'work well with others' followed by 'improving my critical thinking or problem solving skills'.

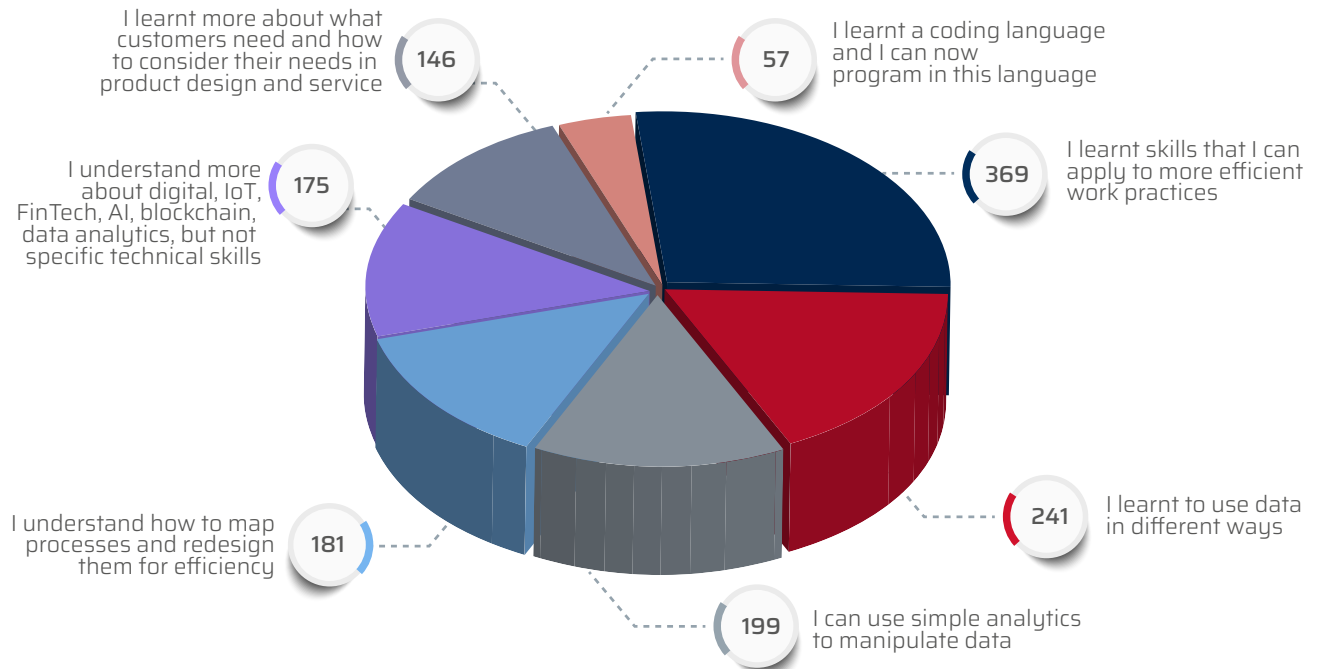


**Figure 24 - On the job application of soft skills learning from nano credentials (Source: Skills Bahrain employee survey, 2021)**

With regard to the application of learning on the job in a more job specific or technical manner, they stated that 'I learnt skills that I can apply to be more efficient at work', followed by 'I learnt how to use data in different ways.'



### Technical and Data Management Skills



**Figure 25 - On the job application of technical skills learning from nano credentials (Source: Skills Bahrain employee survey, 2021)**

24% of people took their nano Learning in Leadership and other soft skill courses. However, a wide range of different technical courses were also taken. The technical courses included data analytics, blockchain, FinTech and represent nearly three quarters of all the nano learning. This is an encouraging trend as it indicates the self-directed learning efforts to upskill in future skills areas from employees in the sector.

Online learning was mentioned by HR Managers as a useful way to upskill. Many reported having various online learning tools, including an LMS, but were unsure as to how they were integrated as part of professional development and individual learning journeys. One Manager described their online learning platform as part of the 'awareness journey', rather than a specific tool for upskilling. The consensus from the HR Managers is that the online learning is there for people to use as they want, rather than a tool for formal development and upskilling programmes.

#### Integrating the New Approaches to Learning in Human Resource Developments

Research indicates that utilizing small 'bite size' chunks of learning (under 10 minutes) is a useful tool in supporting culture change within an organization. Internationally, these small learning

pieces tend to form part of Employee Experience (EX) or Learning Experience (LX) platforms with the combined purpose of upskilling and reinforcing a message of change. They have been linked to higher levels of employee engagement and motivation for self-directed learning. Sometimes called 'learning in the flow of work', this approach is recognized as offering better immediate integration with an individual's daily tasks as alerts are sent to their phone or computer with a 2 to 10 minute piece of learning that directly relates to their job to apply immediately. These can also be indexed, are searchable and can be used as a reference<sup>37</sup>.

Where 'learning in the flow of work' is part of a broader learning journey and underpinned by a set of industry standards, the opportunity to align learning with a shift in skill requirements is significant. However, this is only possible when a clear definition of the skill desired for development is articulated from the baseline to the destination. This is where training standards linked to a sector can be helpful as they directly align to specific learning for skill enhancement.

## Conclusions

A structured, informed learning and development program is required for the sector. This will better align the sector's investment in training to future jobs and skills, and ensure that work-based training can be planned and recognized, rather than selected randomly. The program should be based on agreed standards and a consistent understanding of what skills and behaviors mean as applied in the workplace.

## Emerging Issues - Training and Development

- The current emphasis on and approach to leadership training by employers and funders should be reviewed to ensure the significant spend on leadership training makes the desired impact.
- Training budgets and funding should be closely aligned to assessing quality, outcomes, impact and ROI for training.
- There is a pressing need for structured learning and development programs based on sector-wide standards that can be assessed and formally recognized.
- Employees' preferred training method of on-the-job mentoring should be considered when designing development programs for the sector.
- A sector-wide integrated development approach should be created to address skill gaps in higher order thinking skills.



# 5

Chapter

## Addressing the Future Skills Needs of the Financial Services Sector



This Chapter takes a look at the Skills Gap in the sector and at its future skills needs. It proposes common definitions for skills and behaviors recognized as core to the sector as part of an organizing framework that links skills and behaviors to standards.

### Background to Previous Skills Gap Research

These previous skills studies in the Financial Services market were

conducted at the outset of the Global Financial Crises (GFC) when the landscape of the sector changed significantly. The risk and compliance functions of the sector were under close scrutiny in the wake of GFC; this was identified as a key Skills Gap among Bahrainis in 2008<sup>38</sup>. Based on employer surveys, interviews and workshops, the 2009 Allen Report outlined the following Skills Gap in Bahrain's Financial Services sector:

Skill Type	Proportion of total responses
Risk Management Skills	11%
Communication Skills	8%
Customer Service Skills	8%
Human Resources Skills	8%
Treasury and Investment Skills	8%

**Table 9 - The top 5 skill gaps in Financial Services 2009 (Source: Allen Consulting Skills Gap Report, 2009)**

The Higher Education Council (HEC) is mandated with the regulation of higher education institutions in the Kingdom. In 2015, the HEC completed a review of a number of sectors in Bahrain to look at the changing nature of the jobs and the future role of higher education for these sectors. Based on interviews with sector representatives, it was identified that the Banking and Finance sector has skill gaps in analytical skills, awareness of finance, quantitative research skills, product structuring skills, business development skills, and relationship management skills<sup>39</sup>.

In 2019, the Bahrain EDB undertook a study into the Skills Gap across a number of sectors. Based on survey and interview findings, the study identified the key skills needed in Financial Services under the categories of soft skills, technical skills and IT skills. This study was smaller in scope and sample size than the previous Allen Consulting and Ernst & Young reports, but provides a recent snapshot of skills in the sector. The skills that were highlighted as missing are outlined below:

Soft Skills	Technical Skills	IT Skills
Communication	Risk and Compliance	Cyber Risk and Cybersecurity
Adaptability	Product Development	Digital Marketing
Mindset and Positive Attitude	Certified Analysts	IT Specialists
Problem Solving	Certified Accountants	Web Developers
Language Proficiency	Certified Auditors	Cloud Certification

**Table 10 - The most important skills in Financial Services 2019 (Source: EDB Skills Gap Report, 2019)**

Interestingly the same technical skills are outlined in the Allen Consulting Report in 2009 and the EDB skills study ten years later, with Risk and Compliance skills still considered as lacking in the 2019 study and in our current study.

### Current Skills Gap - What the Survey Said

This section presents the Skills Bahrain survey findings on priority skills for the sector. To ensure meaningful results, the survey tool offered a definition for each skill and behavior so that respondents had a clear understanding of what was meant by the skill or behavior in the context of this report.

The skills and behavior identified as those most important for development were similar across all three survey groups of Line

Managers, Human Resources and Employees. Line Managers and Employees agreed that the top five skills important for the sector are English Language, Time Management, Analyzing, Using Technology and Critical Thinking.

The importance of English language to doing a job well in Bahrain is no surprise. As an international Financial Services hub, Bahrain is inevitably linked to global financial systems where the language for communication is English. The skills identified as important were similar for both expatriate Line Managers and Bahraini Line Managers, indicating agreement about what skills are important to the industry. For both Line Managers and Employees, the responses were the same top 10 skills from both genders, however there was a slightly different order of importance to the skills with

female employees ranking 'commitment to task' higher than their male counterparts.

For the Line Managers, as the number of female employees was only 22% of respondents, the total male and female responses are the same as the male responses with a slightly different

order. However, when viewed on their own, the female responses included 'resilience and adaptability' and 'collaboration and influence' in their top 10, whereas their male counterparts did not. Interestingly, the Line Managers viewed 'agility' as a skill of importance, however this did not feature in the Employees' top 10, which ranked it as the 20th most important skill.

Skills	Line Managers Total	Line Managers Female	Employees
English Language	1st	2nd	1st
Time Management	2nd	1st	3rd
Using Technology	7th	Not in top 10	2nd
Analyzing	4th	7th	4th
Critical Thinking	5th	3rd	5th
Innovation and Creativity	6th	4th	7th
Ethics and Social Awareness	8th	10th	8th
Agility	9th	9th	Not in top 10
Active Learning	10th	Not in top 10	9th
Collaboration and Influence	Not in top 10	8th	Not in top 10
Numeracy	Not in top 10	Not in top 10	10th
Resilience and Adaptability	Not in top 10	6th	Not in top 10
Commitment to Task	3rd	5th	6th

**Table 11 - Survey: Top 10 skills or characteristics that are important to do their job well (Source: Skills Bahrain Surveys, 2021)**

### Which Skills Need Developing?

When considering which skills should be developed in employees, the Line Managers identified similar skills to the Human Resource Managers for the overall results. The only difference between the two in the top 5 skills that could be developed is that Line Managers included English Language and Human Resources

included Process Optimization instead. However, when reviewing the top 10 skills there are a few variations between Line Managers and Human Resource Managers. Human Resource Managers felt that 'Emotional Intelligence' and 'Resilience and Adaptability' need developing and the Line Managers felt 'Active Learning' and 'Finding and Using Data' are skills that need developing.

Skills	Human Resource Managers	Line Managers
English Language	7th	4th
Time Management	4th	2nd
Using Technology	9th	6th
Analyzing	5th	5th
Critical Thinking	2nd	1st
Active Learning	Not in need of developing	8th
Resilience and Adaptability	10th	Not in need of developing
Commitment to Task	8th	7th
Process Optimization	3rd	9th
Emotional Intelligence	6th	Not in need of developing
Finding and Using Data	Not in need of developing	10th
Innovation and Creativity	1st	3rd

**Table 12- Survey: Top 10 skills or characteristics that need developing in employees (Source: Skills Bahrain Line Manager and HR Surveys, 2021)**

Those working in different CBB licensing categories revealed a different order of skills and in some categories, a different mix of skills. One interesting difference is the view on English Language. Only Human Resource Managers in Insurance had English Language in their top 5 skills. For the Line Managers, most of the businesses in the different licensing categories had English Language in their top 5 for developing, and only 'Capital Markets' didn't include English as a skill that needed to be developed in their top 5. The 'Special License' category had English as their number two skill most needed for development.

There is an obvious disconnect between the perception of the English Language skills of employers between the Human Resource Managers and the Line Managers when looking at the findings across each category. As Line Managers are closer to the employees, it could be argued that their view on the employees' skill gap in English Language is a more likely reflection of reality than the Human Resource Managers' understanding of English Language ability.

#### **Introduction and Rationale for the Core Skills and Behaviors Framework**

From the previous studies into sector Skills Gaps, and the research for this report, it is apparent that one of the main challenges in understanding gaps with a view to remedying them is the lack of a common language around skills in the sector. What 'critical thinking' looks like to one manager is different to another and therefore when various terminologies are used to describe competencies or behaviors, they can be lost in translation between HR Managers, training providers, etc. For this reason, the Core

Skills and Behaviors Framework was designed to aid the research. In turn, the process of undertaking the research also served to refine and validate the core skills and behaviors in the Framework.

#### **The Basis of the Framework**

The Financial Services Sector Core Skills and Behaviors Framework is built based on the WEF Skills Taxonomy Framework<sup>40</sup>. This globally benchmarked framework was chosen as it has an important emphasis on the future skills needed to support the rapid changes in the Financial Services sector. In addition, local research was used to inform the specific skills and behaviors and the overall application of these at different levels on the job, within the sector in Bahrain.

The Framework is made up of three strategic pillars. These pillars were identified by the CBB as the core areas for development within the sector. The pillars are defined as:

- **Strategy** – This pillar addresses what is needed to drive change and move the sector into the future.
- **Leadership & Ethics** – This pillar addresses the personal characteristics expected from those working in the sector with a strong emphasis on ethics and Islamic work values.
- **Performance Drivers** – This pillar focuses on the technical and job-related ability to improve competitiveness and performance outcomes for the sector.



*'It is important to have graduates with the right attitude and professional character for the workplace.'*

- Line Manager

Within each of these pillars are a number of skills and behaviors that are designed to capture the core skills and behaviors needed across all jobs in the sector for it to move into the future. There

are a total of 16 different skills and behaviors under the pillars as shown below.

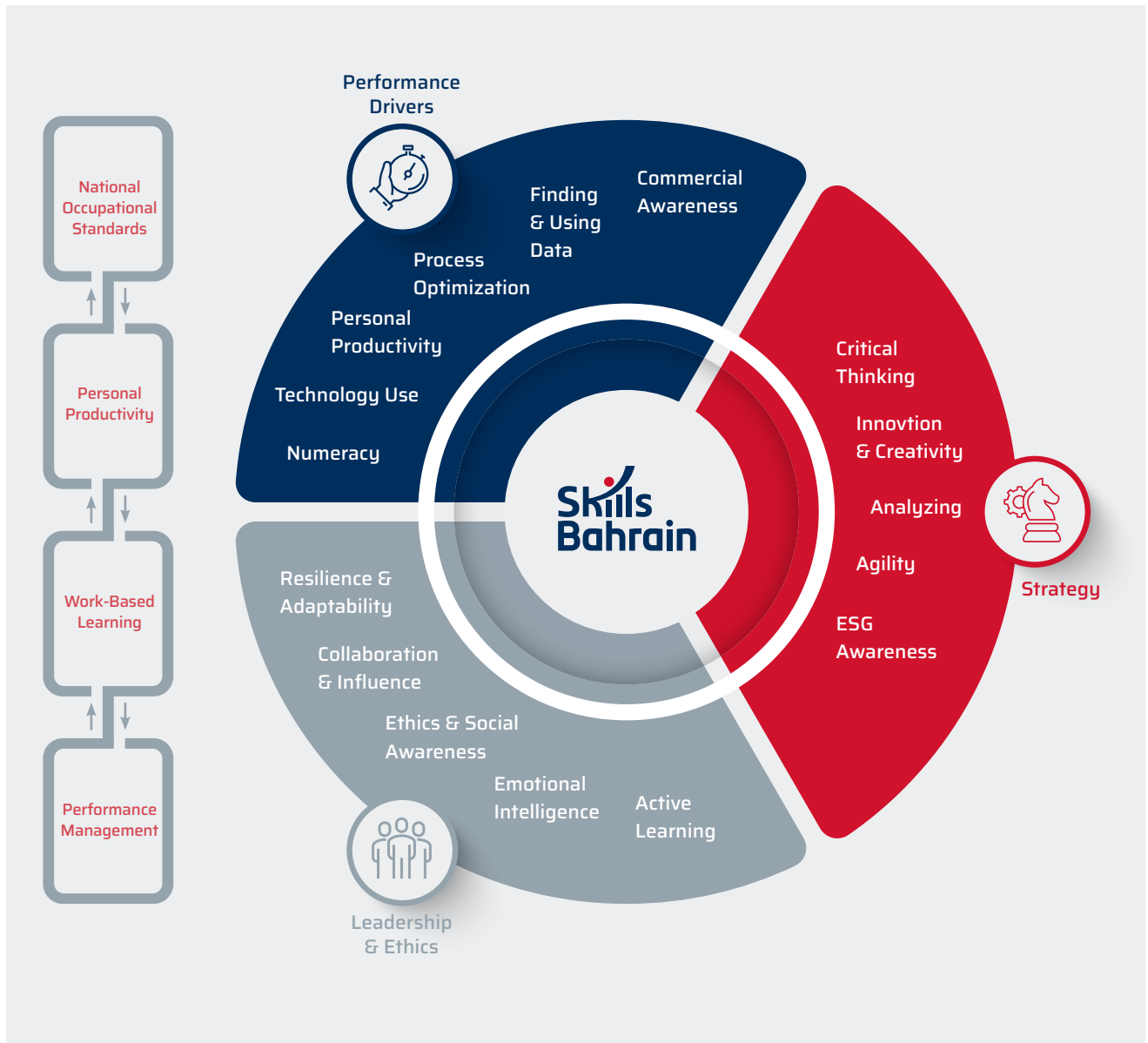


Figure 26- The Financial Services Sector core skills and behaviors framework

Each of these skills and behaviors can expand to more specific sub-skills. For example, Emotional Intelligence includes the skills of communication, active listening, etc. The Framework is dynamic and therefore the sub-skills within it will evolve as the Framework itself evolves for the sector.

### The Core Skills and Behaviors Level Descriptors

For each skill and behavior there is a Core Skills and Behaviors Level Descriptor that outlines a description of the skill or behavior required across 5 levels, the knowledge required and the abilities that are expected to be demonstrated at each level on the job. In addition to the core skills for the sector, a number of technical skills have been outlined in Technical Skill Descriptors. These are based on and benchmarked to the Singapore Financial Services Technical Skills Framework and cover a wide range of specific technical tasks unique to the Financial Services sector. Refer to the example of the Level Descriptor in the Appendix.

The Core Skills and Behavior Framework serves as a Foundation for a standards-based approach to training, assessment and performance management. As well as providing common definitions on which to base the Skills Bahrain survey, frameworks like the one developed for Bahrain are used internationally as the foundation for training standards and to inform what 'good' looks like on the job. Apprenticeship standards in the United Kingdom, for example, are designed around both the technical and core skills that each sector feels are important. The Core Skills and Behaviors Framework aims to support the sector with an agreed taxonomy of skills and behaviors, especially with regard to Digital Skills. It is designed to be used in a range of ways, including:

- To form as a basis for core standards to be used to outline training and development programmes
- To support the organization of performance indicators for evidence of skills and behaviors at each level
- To allow for assessment of workplace learning to be aligned to evidence for each level that is also aligned to the levels for Bahrain's National Qualifications Framework
- To be used by training providers and education institutions as the basis for Learning Outcomes to closer match education and training with industry needs

- To complement existing organizational competency frameworks where desired
- To allow those who work in the sector to collect a portfolio of evidence of skills and behaviors that is understood by the sector for ease of the movement of talent
- To be used as a basis for the regular assessment of skill across the sector
- To allow the development of National Occupational Standards that include details of the core skills and behaviors required at each level for jobs across the sector.

### Findings from the Line Manager Survey across the Pillars of the Framework

The following sections explore how the views of employers, with regard to priority skills and development needs for the sector, relate to the three pillars identified by the CBB as the core areas for development. The pillars also form the foundation for the Financial Services Sector Core Skills and Behaviors Framework.

#### How Line Managers' Priorities Relate to the Strategy Pillar

The Strategy pillar is defined as the ability to understand the bigger picture and think in a manner that leads to change, creativity or innovation. Line Managers were asked to respond to a number of scenarios and the extent to which they felt the scenario represented their employees. Three of the top 5 skills outlined as needing development were 'Critical Thinking', 'Analyzing' and 'Innovation and Creativity'. All three of these skills fall under the skills pillar or category of 'strategy' in the Core Future Skills and Behaviors Framework.

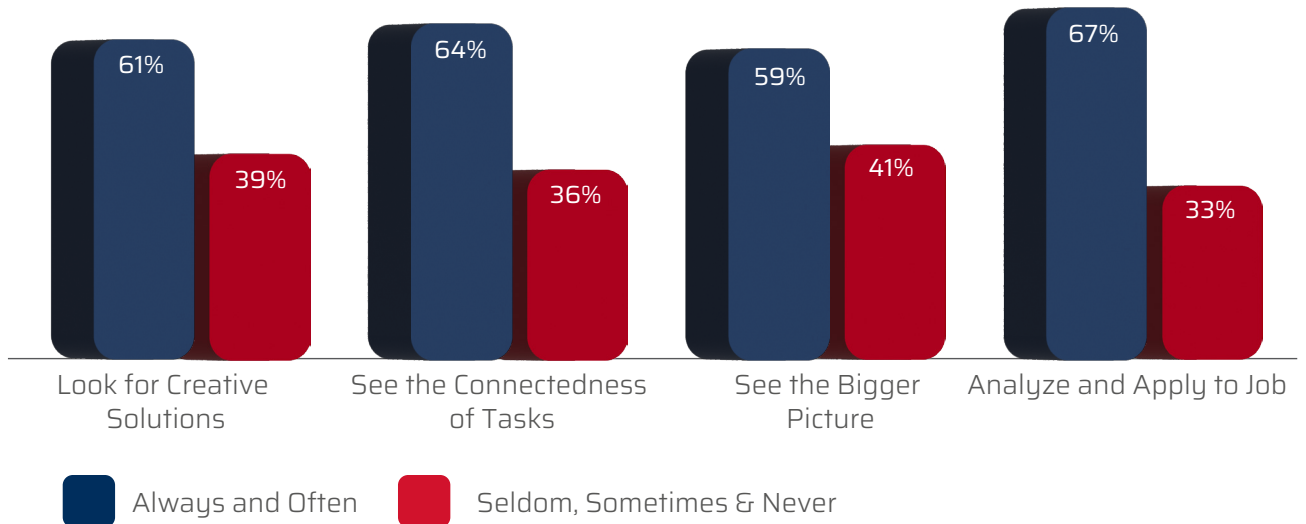
Critical Thinking, Analyzing and Innovation & Creativity are skills that are also cited as the key future skills in FinTech Bay Talent report 2018<sup>41</sup>. This report stated that employers said 'creativity' was the most important core skills for the development of FinTech in Bahrain.

The following graph below shows Line Managers' responses to how their employees apply different Strategy Pillar skills on the job.

*'(The) ability to work under pressure is important.'*

- Line Manager

#### Line Managers' view on Employees Strategy pillar



**Figure 27** - Line Managers' responses to how their employees apply different strategy pillar skills on the job (Source: Skills Bahrain Line Manager Survey, 2021)

Our findings from the survey are well aligned to the Skills Gaps identified by the profiles of the 554 candidates who did not pass the recruitment assessments outlined in Chapter 4, which highlighted the poor average responses to the analysis and critical thinking assessment questions against a regional standard. The findings taken together indicate the need to improve the core skills of critical thinking and analyzing for both school leavers and those currently in the sector.

#### How Line Managers' Priorities Relate to the Leadership and Ethics Pillar

While the specific skills and behaviors associated with Leadership and Ethics did not appear consistently in the top 10 skills needing

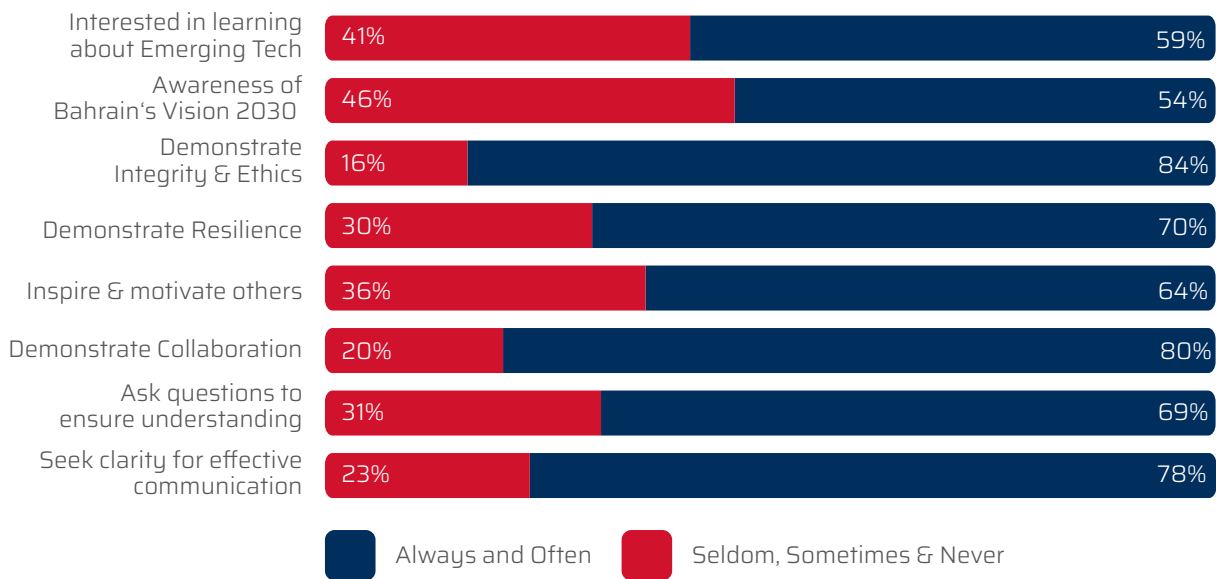
development, the Human Resource Managers felt 'Emotional Intelligence' and 'Resilience and Adaptability' were in need of development and the Line Managers felt 'Active Learning' was in need of development. These three skills fall within the Leadership and Ethics Pillar on the Core Skills and Behaviors Framework.

The following graph illustrates Line Managers' Responses to how their employees apply different Leadership & Ethics Pillar skills and their behavior on the job.

*'The focus should be on broad knowledge of the finance industry while providing in depth knowledge about the trends and movers of the industry, knowledge on how to approach finance from a digital perspective, and incorporating new technologies to improve your offerings.'*

- Line Manager

#### Line Managers' view on Employees Leadership & ethics pillar



**Figure 28 - Line Managers' responses to how their employees apply different leadership & ethics pillar skills and behavior on the job (Source: Skills Bahrain Line Manager Survey, 2021)**

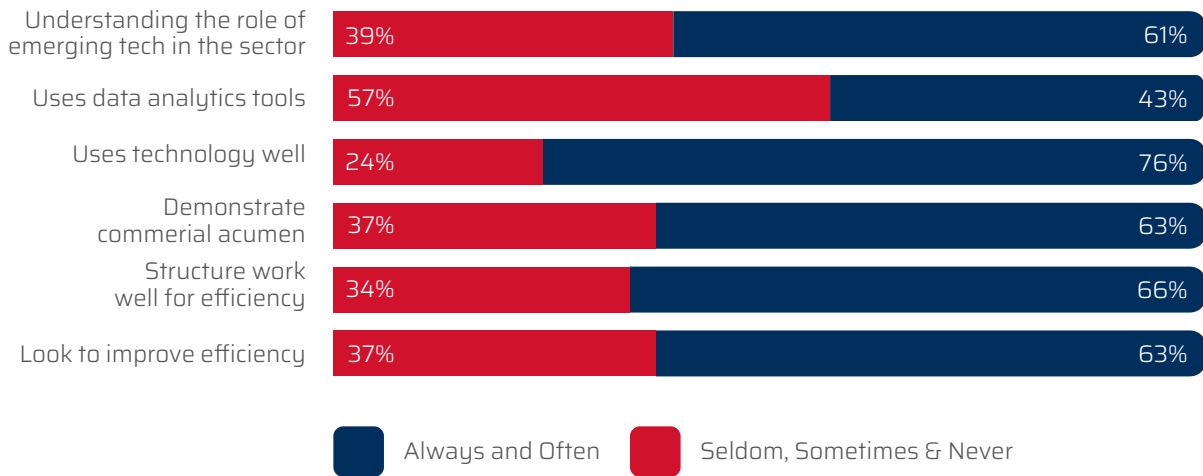
#### How Employers' Priorities Relate to the Performance Drivers Pillar

With a significant contribution to the national GDP of Bahrain, the financial performance of the sector is of national importance. While some of the skills in this cluster may not be seen as core skills in the traditional sense, the Performance Drivers cluster of skills and behaviors are what drive the sector to be competitive, both internationally and locally, and therefore, a minimum standard of these skills are behaviors essential to cope with change and drive growth in the sector. The Performance Driver skills and behaviors that appear within the top 10 for both Line Managers and Human Resource Managers are 'Time Management', 'Process Optimization', 'Commitment to Task' and 'Using Technology'. In addition, Line Managers included 'Finding and Using Data' in their top 10 skills. The additional skill highlighted in the responses

by Line Managers, 'Finding and Using Data', refers to the rise in data analytics as a mainstream core skill for all employees and progresses in the Framework level descriptors to more advanced data science work. The key difference between the levels of application of this skill is in the complexity and structure of data. Highly unstructured and complex data is managed by a Data Scientist or Analyst and would be at the highest level for this skill. At a foundation level, all employees need to know how to source data, reference data, analyze data to draw meaning and insights and present data in a visual format.

The following graph shows Line Managers' responses to how their employees apply different Performance Driver skills and behaviors on the job.

### Line Managers' view on Employees' performance drivers pillar



**Figure 29** - Line Managers' responses to how their employees apply different performance driver skills and behavior on the job (Source: Skills Bahrain Line Manager Survey, 2021)

### Hard to Fill Vacancies and Recruitment

It is evident from the research findings that there is broad consensus within the sector about the core skills and behaviors needed, in particular digital skills. Across all HR Managers it was clear that a big focus of their talent strategy is on bringing in new people with more digital skills. The focus on recruitment is understandable to meet immediate needs, but for the mid and longer terms, a strategy for reskilling and upskilling is also necessary. The data on hard to fill vacancies sheds some light on Skills Gaps and shortages in the wider economy and on the level of competition for talent in some areas.

The majority of HR Managers surveyed said they had 1 to 2 vacancies currently available (60%) with nearly a quarter saying they had 2 to 5 vacancies to fill. When viewed across the licensing category, HR Managers that said they had 20 or more vacancies were predominantly from Conventional Retail Banking.

Recruitment practices vary across regions and industries. In Bahrain, head-hunters and recruitment agencies are often used for executive level or specialist roles only. Entry level jobs are more likely to go to a wider audience through LinkedIn and other social media. The following looks at how the sector's HR attract talent.



### Key Recruitment Channels

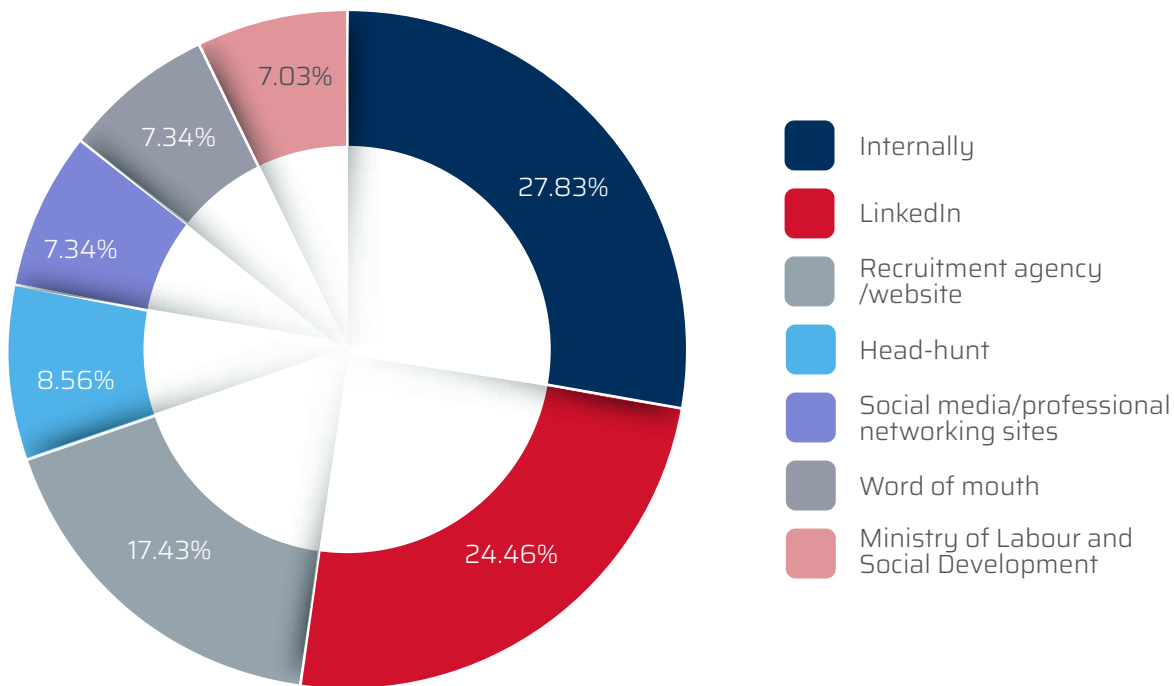


Figure 30 - Channels for recruitment (Source: Skills Bahrain HR Survey, 2021)

The findings indicate that a lot of vacancies are filled internally, and people are moving between jobs in the same organization.

As BFB is central to the Bahrain and regional ecosystem, it is a natural source for talent in emerging roles within sector. BFB recently launched their talent portal where they have received approximately 495 applications in 6 months. Of these, 387 applications were from Bahraini Bachelor's degree holders. The most popular roles that BFB facilitate recruitment for are data scientist, digital marketing and back end UX/UI roles.

HR Managers consistently mentioned the challenges of recruiting for specific roles, in particular Leadership, and Risk and Compliance roles. Somewhat surprisingly, the number one hard to fill vacancy was stated by HR Managers as Customer Service, Sales and Relationship Management. This was explored further in the focus groups where it was mentioned that classic Relationship Management skills are hard to find as so much of the sector has become transactional, rather than relationship-based. HR Managers also mentioned the high turnover of Customer Service and Sales jobs where the 'service mindset' is lacking. It is important to note from the analysis of this Job Family, that the salaries for this area of the sector are one of the lowest out of all Job Families, which could negatively impact retention.

## Banking and Finance

Top 5 areas of business that are hard to fill



Risk, Compliance and Legal



Sales, Customer Service and Relationship Management



Operations



Digital Transformation



Financial Control

Figure 31- Hard to fill vacancies (Source: Skills Bahrain HR Survey, 2021)

The jobs in Risk, Compliance and Operations were mentioned by HR Managers as a job role with high levels of head-hunting from competitors. As one HR Manager said in referring to cybersecurity jobs, 'They know everyone needs them, they will go to someone who pays more'.

The insurance sector reported on different areas of hard to fill vacancies with Claims, and Underwriting being the areas of the

business with the highest turnover and the hardest to fill, as outlined below. Insurance also reported having a larger number of vacancies in Customer Services and Relationship Management. As the job titles in the insurance sector differ to that of other Financial Services organizations, these jobs may also overlap with Claims, and Underwriter areas of the business. This makes the overall hard to fill vacancies in the insurance sector predominantly customer facing roles.

## Insurance

Top 5 areas of business that are hard to fill



Sales, Customer Service and Relationship Management



Claims, Underwriting



Operations



Human Resources



Digital Transformation / Risk and Compliance

Figure 32 - Insurance sector hard to fill vacancies

## Digital Skills for a Digital Economy

The World Economic Forum's 2020 Future of Jobs Report has identified the top 10 skills needed for 2025<sup>42</sup> as listed in Figure 29. WEF also highlight skills that CEOs state as growing. These include Active Learning and Resilience, Stress Tolerance and Flexibility, all skills that are needed to respond to rapid change. In their document 'Towards a Reskilling Revolution', WEF consider the changing jobs in the Financial Services sector. As discussed in Chapter Two, many of these jobs are in traditional areas of the business, but transformed in the way they serve clients. For example, the traditional customer service or bank teller role is

changing into more of a technical 'Digital Ambassador' with new tasks, such as helping customers with digital tools and troubleshooting; these require a different set of skills<sup>43</sup>. According to data from Coursera, the online training repository, it takes between 2 to 3 months to learn core data and digital skills and between 4 to 5 months to learn more advanced cloud computing or engineering skills<sup>42</sup>.

BFB's Eco System Report also highlighted similar technical skills, especially those related to software development, data and cybersecurity, although the need for regulation and compliance skills is also highlighted.

### Top 10 Skills of 2025

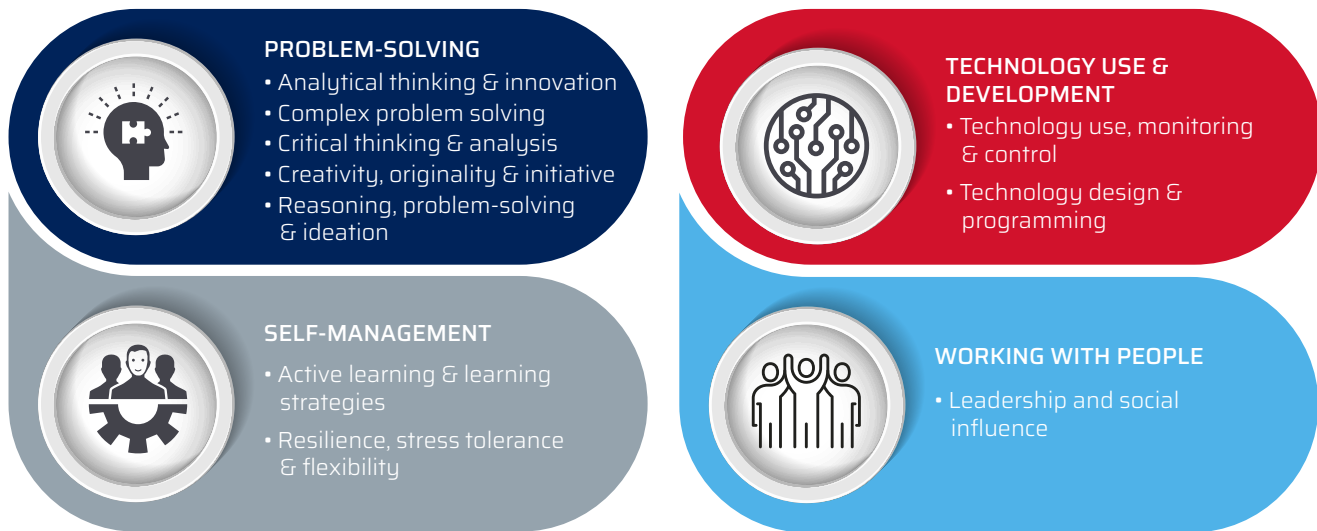


Figure 33 - Source: World Economic Forum Skills needed by 2025

#### Bahrain Financial Services' Perspective on Technical Skills for the Future

The responses to skills needed in the future is a key focus of the Skills Bahrain survey. The survey focused on technical skills that need developing in the sector rather than the softer skills which are discussed earlier in this chapter. As noted previously when discussing future skills needs, the use of technology as an enabler of efficiency, and its use for innovation and new products and services is often not differentiated. The survey presented

13 future technical skills with a description of each skill to help address this. For example, data analytics was presented in two parts; 1. Data analytics - interpreting and reporting on data (using outputs of big data); 2. Data analytics - programming and designing (software programming). All three groups of respondents selected data analytics - interpreting and reporting on data as a key skill in the top 5, with Line Managers saying it was the number one skill needed in the next 5 years. The following outlines the most needed technical skills for the future according to the survey:

Human Resource Managers	Line Managers	Employees
Risk Management	Data Analytics - Interpreting and Reporting	Using Technology at Work
Data Analytics - Interpreting and Reporting	Using Technology at Work	Project Management
Cybersecurity (technical)	Process Analysis and Redesign	Data Analytics - Interpreting and Reporting
Process Analysis and Redesign	Risk Management	Process Analysis and Redesign
Using Technology at Work	Project Management	Risk Management

Table 13- Survey Findings: Top 5 future skills

*'There is a major deconstructing of banking driven by technology; technology companies are going into the last frontier of a regulated industry. With that you face a lot of challenges in terms of the skills set.'*

- Line Manager

The top 5 skills selected were consistent across all respondents with a couple of exceptions. The employees and Line Managers had the same top 5 skills, but in a slightly different order of importance. The Human Resource Managers however, included 'cybersecurity' instead of 'project management'. The levels of consistency between all three groups surveyed is encouraging as it outlines that the sector has agreed on the skills needed for the next 5 years. When viewed across the different licensing categories, most of the same top 5 skills were suggested, the exceptions being Cybersecurity which was in the top 5 for Capital Markets, Insurance and Islamic Banking. Cloud Computing was in the top 5 for Islamic Banking, Digital Marketing was in the top 5 for Special Licenses and Data Analytics Programming was in the top 5 for Investment Firms.

The following paragraphs delve more deeply into the research on the top future technical skills.

#### Data Analytics

Data Analytics also came out very strongly in the focus groups from the Line Managers, HR Managers and Executives' perspectives. One Line Manager emphasised the significance of data interpretation in the decision-making process: *'Data is not only putting tables in a certain format, but you need to interpret this data to take the right choices and make the right decision'*.

Another Line Manager stated: *'The main skills required when dealing with data is being analytical and being able to forecast what the client's behavior would be'*. A CEO participant also noted the significance of data saying: *'We need staff that are data driven'*.

Line Managers have also highlighted the importance of developing these data analytical skills within the business units instead of having them limited to employees in the IT team within the organization. They noted the significance of the collaboration between the business users and IT since the business users are responsible for analyzing the data and suggesting solutions based on the business needs. A Line Manager said, *'IT has difficulty understanding what the business users need. And this is where data management comes in, where you have to understand your data as a business user, you have to understand your databases, understand the relationship, and you start developing very interesting things.'*

#### Using Technology at Work

Employees identified the use of technology at work as the top

future skills for the sector in the next 5 years, while it ranked second in the Line Managers' responses and 5th in the HR Managers' responses to the surveys. *'If you don't understand technology, don't come to banking, it's as simple as that,'* one Line Manager added. *'Business users in the sector should be able to use technology at work. It should not be reserved only for those in IT teams.'* One Line Manager noted, *'You have to be really comfortable with technology and how to use technology within the business units of the organization and not only the IT unit.'*

The need for skills that enable individuals to utilize digital technology became more evident during the pandemic. *'Those who are technology savvy and ready to cope with immediate requirement for using technology were very much excellent over the past period during COVID-19. But for those who are used to the conventional way, the classical way, the paper-based work, they had the big challenge during COVID times,'* a Line Manager said.

#### Project Management Skills

The ability to apply project management tools and methodologies to deliver a project also came up in the findings as a required future skill for the sector. Project management skills ranked 2nd in Employees' responses related to the future skills of the sector in the next 5 years. It was ranked 5th in the Line Managers' responses to the survey and it did not appear in the top 5 among the HR Manager responses.

The significance of project management skills for the future was also highlighted during the focus group discussions. As stated by a Line Manager, *'Since the sector is changing, there is a lack of change management and experts in project management. That is what we need.'*

#### Process Analysis and Redesign Skills

The findings have also highlighted Process Analysis and Redesign Skills as one of the top 5 future skills required for the sector. Individuals with those skill sets have the ability to analyze and redesign processes during the course of the job in preparation for automation or efficiency improvements. Line Managers have ranked Process Analysis and Redesign Skills 3rd among the required future skills for the sector in the next 5 years, while employees and HR Managers ranked it 4th based on the responses to the surveys.

In order for the individuals to have proper process redesign skills they have to have full awareness and understanding of the

process. 'We need to focus on the core knowledge for employees to understand the process end to end, and then they can excel in bringing technology to that area. But without knowing the basics, any idea will not seem mature or practical to be developed a Line Manager participating in the focus groups said.

The findings also emphasised the importance of building in house capacity related to process analysis and redesign as opposed to getting external support. An executive from the insurance sector also highlighted the need for process analysis and redesign skills for the future of the sector. *'There is a shortage in skills for the future requirements of the sector, for example in insurance we sell and collect premiums, so we have underwriters to bring business and surveyors to manage claims. And this can be automated from A to Z and in Bahrain this happened. We can issue policies without the underwriters as the process has been automated,'* the executive commented.

#### Risk Management Skills

These skills were mentioned as important by Line Managers. They were not in the top 5 of the other two groups surveyed. This might be because of the role Line Managers play in ensuring their teams meet compliance requirements. When discussed in

the focus group, it was apparent that this was more about risk and compliance awareness as a core skill for the sector. When discussing this with the HR Managers, they highlighted the fact that Risk and Compliance is a hard to fill vacancy.

#### Cybersecurity Technical Skills

Currently, many cybersecurity professionals are expatriates, and this is an emerging profession across all sectors in Bahrain. The Bahrain National Cybersecurity Centre oversees the development of effective cybersecurity practices across Bahrain and offers standards on the capabilities and skills needed to develop this role in Bahrain. It is possible this organization will set the training and qualification regulations for cybersecurity jobs in the future. Additionally, some Bahrain Universities have started to offer cybersecurity degree programmes.

#### Future Jobs and their relationship to Future Skills

In addition to the skills and behaviors outlined in the Core Skills and Behaviors Framework, when looking at the Job Families in Chapter Two, and changes to skills in the emerging jobs, there are some clear consistencies. The following summarises the new skills identified in the analysis of each Job Family.



Skill and Description	Application to Financial Services
<b>Critical Thinking</b>	With the changing nature of jobs in the sector, job roles will cover a wider breadth of tasks and knowledge requirements. The ability to handle complexity and problem solve will be a core skill in these jobs. Evaluating multiple perspectives quickly to draw conclusions and insights will be a key skill at all levels of the new organization.
<b>Data Analytics - visualization and reporting</b>	This skill was in demand as a key future skill. An organization's business model will determine the extent to which the business units do this work themselves versus working with a Data Scientist to retrieve and use information. Interpreting data and being able to visualize it also requires a level of Critical Thinking and Analysis skills.
<b>Technology Use - Technology trouble shooting</b>	As many of the current junior roles shift to digital, they will often be around customer support for the use of digital tools. Therefore, the ability to understand technology and communicate this well, especially for troubleshooting with technology, will be important.
<b>Analyzing</b>	Applying a high level of company, sector and product knowledge to innovation and product development solutions.
<b>Emotional Intelligence</b>	<ul style="list-style-type: none"> <li>• Using communication skills to offer 'advisory' over traditional sales</li> <li>• Effectively communicating business and data insights to the right audience</li> <li>• Offering the human touch and empathy</li> </ul>
<b>Collaboration and influence</b>	Working across the organization to help bridge the gap between business needs and data insights.
<b>Commercial Orientation</b>	Understanding the institution, sector, FinTech models and how emerging technology will disrupt the sector within commercial principles.

**Table 14** – A summary of the 'new skills' from the changing job roles in the Job Families from Chapter Two (Source: Skills Bahrain Analysis)

### Misalignment of Training and Skills Needs in Bahrain

It is apparent from the analysis in Chapter 4 that despite a significant investment in training across the sector, there is still a Skills Gap in some of the core skill areas. The big investment in Leadership training indicates an effort by employers to address some of the fundamental skills and behaviors, such as those highlighted in the survey findings. Line Managers reported areas such as teamwork, aspects of communication and personal integrity were good among employees. This could indicate the positive impact of the Leadership training investment, but due to the lack of sector-wide and organizational impact assessment of this training, it is difficult to confirm.

Some of the weak responses presented above under the Strategic Pillar of the Financial Services Sector Core Skills and Behaviors Framework are concerning in terms of Critical Thinking, Analysis and Innovation & Creativity. This gap area needs to be addressed

through learning and development in the sector. Likewise, the Performance Drivers of the sector showed some areas of concern that are essential for digital developments going forward.

The lack of awareness of emerging technology identified by Line Managers in the survey is a contradiction to the comments from respondents in the focus groups, who stated that the younger generation understand digital and technology very well. It is possible that the understanding of the role of emerging technology in the sector is where the gap is, rather than a general understanding of the technology itself. Understanding the role of technology would indicate that individuals need to have insight into its application in the sector, more than simply being aware that it exists. This requires strategic thinking and a thorough understanding of the sector, areas that did not score high in the Strategic Pillar findings.

### Conclusion - Bridging the Skills Gap

The survey findings, combined with international research and benchmarking, show clearly the priority skills that are needed for the sector. The next step is to consider how they are to be developed. As discussed previously, the delivery modes for learning and development will have to change to address future skill needs. There is a clear shift from face to face to online learning and a need for more on-the-job and in-house development. And stronger measures of the impact of learning and development are required that are more closely aligned to business performance outcomes. However, the lack of clear learning pathways and recognition of in-house training, combined with the lack of dedicated learning and development professionals across the sector, suggest that the sector does not currently have the infrastructure and resources needed to address the Skills Gap.

The areas of skill gap identified by studies from up to 15 years ago are still being highlighted as areas for skill improvement now. The lack of Critical Thinking in the education system was a key driver of the early education reforms in Bahrain. While the outcomes of reform processes need to be viewed from a long-term perspective, it is clear that there are people working in the sector who still do not demonstrate strength in the core skills needed to move the sector forward; this will have to be addressed in the workplace.

### Emerging Issues – Current and Future Skills

- Core skills and behaviors need to be embedded into training and development across the sector.
- The Core Skills and Behaviors Framework offers the sector an agreed taxonomy of skills and behaviors, especially with regard to Digital Skills.
- The Framework should be used as the catalyst for a standards-based training system that allows for the planning and assessment of workplace learning, industry relevant education and training programmes, increased transparency of skills and portability of labor across the sector.
- The core skills identified as important and in need of development in the survey should be used as foundation standards. These should not be delivered in isolation but embedded at the appropriate level into all training programmes delivered by the sector.
- The areas of skill gap identified both in the past and future skill needs should become priority areas for development in Bahrain's education system.
- Job specific technical skills should be the focus of curricula that support emerging jobs in the sector.

# 6

Chapter

## Readiness for the Development of Future Skills



This Chapter assesses the readiness of the skills development system in Bahrain to respond to the demands brought about by disruption to the sector, including the priority skill sets required, new ways of working, and culture change in the sector. It draws on the research evidence to propose a new approach to skills development for Bahrain.

### **Current Gaps in Education for Future Skills**

Over 60% of graduates coming into the Financial Services sector have completed a degree in Business Administration. A review of the key institutions that feed graduates into the sector reveals that there is not a consistent approach to embedding future skills into curricula. Some institutions promote that they embed employability skills or 21st century skills into their programs, but the details on how this is aligned, assessed and evidenced is weak. Both the BQA programming requirements and the NQF processes aim to ensure this is done within the scope of the program reviews and the NQF listing. However, these processes are infrequent, and although they include monitoring for program alignment to the labor market, this must be done on a more rigorous and transparent way to help, young people, parents and employees make better choices in the future. BQA processes should also ensure that there is a portfolio of evidence of skills development within formal education qualifications.

### **Readiness of Other Training Providers in Bahrain**

To develop a world-class skill system in Bahrain, the training sector needs to have the professionals with the skills necessary to translate a training conversation with industry into standards, align these standards to skills frameworks and design development program and curricula. Currently, few training providers, except for those offering awarding body qualifications, follow a standards-based training approach. Where certification or qualifications require standards to be evidenced through assessment, course material tends to be tailored towards the assessment. Part of readiness for the future of the sector is the need to underpin all training with a core set of skills and behaviors that describe specifically what the skills and behaviors look like at different levels. These can then be used to assess individuals to identify a baseline, and then be used as a comparison for before and after skill development and achievement. This also provides the baseline to measure impact.

### **Readiness of Employers in the Sector to Support the Development of Future Skills**

It was very apparent during the research that some organizations are better prepared than others to embed work-based learning in a structured way within the organization as a critical part of talent strategy. The ability to design meaningful learning journeys is a skill that is often not included in the expected skill sets of HR professionals in Bahrain. The levels of strategic understanding of HR and learning and development in financial institutions in Bahrain varied significantly. Businesses recognized that they really need to evaluate their talent development strategies against their business strategies and to build capacity and resources to do this. 78% of HR Managers said they do not have Learning and Development staff who are certified as in-house on the job assessors and only 46% of Employers said they had in-house learning management systems. The pandemic has highlighted that businesses need greater support to target their development strategies and ensure they have the right people and systems to make a greater impact and return on investment for training. There are numerous learning management systems available, which can provide support through an effective targeted strategy.

### **The Role of Performance Management in Supporting Skills Development**

Standards-based learning supports effective performance management within organizations and ensure skills development aligns to business objectives. The majority of HR Managers in the sector stated that their Performance Appraisal process is annual (66%), with 21% saying their organization undertakes Performance Appraisals twice a year. 6% reported doing their Performance Appraisals quarterly and 3% said they don't have a Performance Appraisal system.

Thoughts on the role of the traditional annual Performance Appraisal are changing. Experts state that in today's rapidly changing work environment, once a year is not frequent enough to identify skill gaps and have performance conversations with employees <sup>44</sup>. This view was supported by the CBB who stated that it is about the quality of the Performance Appraisal, not just the frequency. What came out clearly in the focus groups is that the sector wants more measured risk taking which is at odds with the way bonuses and performance management operate.

In the research, HR Managers talked about the importance of ‘embedding training into performance systems’, meaning that training and development is directly aligned to performance outcomes for individuals and their job roles. However, if the ability to measure the impact of training is weak, then the alignment with performance management systems will also be weak. Glaveski (2019), in his Harvard Business Review article, stated that 75% of managers are unhappy with the Learning and Development function within their HR departments <sup>45</sup>. Research indicates training effectiveness decreases over time and even quicker if the learning is not applied to the job <sup>46</sup>. In particular where there is a need for rapid upskilling, it is essential to target training investment to development needs identified through a well-functioning performance management system.

Regular skills discussions are necessary to evaluate skills development and application of learning on the job. For this reason, many companies have moved towards a monthly informal ‘check in’ system to replace the traditional performance appraisal. With employees in the survey responding that on-the-job mentoring is their preferred method of learning and development, this would support a regular skills check in approach in the sector in Bahrain.

One of the challenges of performance appraisals is that they are subject to the experience and skills of the Line Manager undertaking the appraisal. As our research indicates a disconnect between generations and levels of hierarchy, this could pose a challenge with the inconsistency of performance management systems across an organization. Findings from the research indicate that to strengthen work-based learning and, linked to that, performance management in organizations, the following action should be taken:

- Within organizations, talent strategy should be elevated to the same importance as business strategy
- Sector-wide performance management practices should be reviewed to ensure better evidencing of skill development in a work context. Performance systems should move from annual to regular check ins with well trained Line Managers
- Line Managers should be upskilled in coaching and mentoring techniques to better support employee development and development conversations

### Gaps in Leadership for Transformation

The CBB recognizes that strategic leadership in Bahrain is essential to the transformation of the sector and has invested heavily in capacity and leadership development. Lack of leadership skills was also well articulated in the interviews and focus groups for this report. Sector representatives talked about a few themes around leadership and the gaps.

#### Digital and Leadership

The gap in understanding around Digital, FinTech and Senior Management was mentioned many times. Some businesses described a cultural battle between the old ways of doing things and the new.

Another CEO made the point that if Executive Management does not understand the detailed business implications of digital and FinTech they cannot lead a shared vision: *‘The talent comes from shared vision; retaining talent needs that shared vision that everyone knows.’*

The weakness of governance was also mentioned by some respondents in the context of discussions about the quality of the Boards of Directors and the lack of understanding of digital and FinTech at the board level. One Line Manager talked about how this has hindered the ability of the sector to remain competitive.

#### Generational Leadership Gap

Analysis of the training programs delivered by the top employers indicates a gap in the area of Middle Management development. The gap between Executive Leadership and Middle Management was also identified as an issue by those interviewed. *‘If you look at CEOs, you can see them and then there is a gap between that and middle management. The need for having leadership programs to teach middle management skills is definitely important for the business and that is sometimes very costly.’*

The generational gap was not only in the context of a gap in the understanding of digital, but also with regard to skills in general: *‘If you’re looking at senior management, it’s more on leadership and digital, but on the lower end, if you look at the middle and the grades below, we are focusing a lot on communication, because these people are communicating on several social devices, whether it’s through emails, WhatsApp, whatever they are using, the norm is changing.’*

### Leading Millennials and Gen Z

27% of the survey respondents were under the age of 30. Many Financial Institutions in Bahrain have been aggressively recruiting people into their organizations to support their future digital strategies. The National Bank of Bahrain (NBB), for example has seen its workforce triple in a few years with the average age of an employee reducing significantly in five years. With a rapid demographic shift in the workforce and the integration of Millennials and now GenZ into the workforce, the culture and nature of work in the sector is changing.

The trend in Bahrain mimics similar trends in the sector internationally where research suggests the new 'digital natives' coming into the sector have different expectations from work and are impacting the culture of the sector and the way people work<sup>47</sup>. Millennials are defined as those born between 1980 and 1995 who entered adulthood around the millennium. GenZ are those born around 2000 and are starting to enter adulthood now<sup>48</sup>. A defining feature of these generations is their natural propensity towards technology. This was highlighted by one HR manager who said, *'The younger generation that I've seen coming in are a lot more tech savvy and I'm surprised that they already know a lot of the concepts.'* The deliberate recruitment and integration of these tech savvy young people is seen as an important part of the future of the sector in Bahrain.

Despite the contribution from tech savvy youth, the sector is still lacking in many of the technical skills needed to compete with FinTechs. Additionally, many of the youth in the sector lack the strategic experience and sector wide understanding to create new strategies to respond to the changes affecting it. The dichotomy is that organizations have youth with the understanding of technology, but not strategy, and the Board of Director or Executive Level with an understanding of strategy, but not technology. This creates a governance and innovation dilemma for moving the sector forward. As one HR Manager said, *'We're kind of embedding a digital change in the culture. It starts with the people, so there's a lot of empowerment.'* She went on to say that the empowerment that comes with this is not always well received by Senior Management who are used to a culture of hierarchy.

### The New World of Skills for Bahrain's Financial Service Sector

Dynamic companies operate HR models where people are rewarded for skills, not their tenure, connections or level in the hierarchy. For example, some Chief Technology Officers get paid more than the Chief Executive Officers in some sectors, where skills and evidence of outputs are more highly valued than work experience or where you graduated from<sup>49</sup>. We are seeing evidence of this in FinTech and innovation departments in the Financial Services sector.

### Competency, Knowledge and Skills

A modern organization houses hundreds of thousands of skills, from turning on a computer to more complex niche skills. Globally, the term 'skills' has become more popular in economic development literature over the term 'knowledge'. As the world begins to talk more about 'digital economies' than 'knowledge economies', how you do digital is becoming far more relevant than what you know about digital. The shift also reflects the level of digital maturity of Bahrain's Financial Services sector, where there has been a lot of knowledge building about digital, but less action towards acquiring digital skills specifically. That needs to change if Bahrain's Financial Service sector is going to continue to grow globally.

### Skills-Based versus Role Based

A skills-based approach changes the perspective on individuals and their contribution to organizations. The following is an example of the changing role of Customer Services in a Retail Branch of a Bank. This example assumes the customer service worker is supporting customers in a hybrid digital branch.

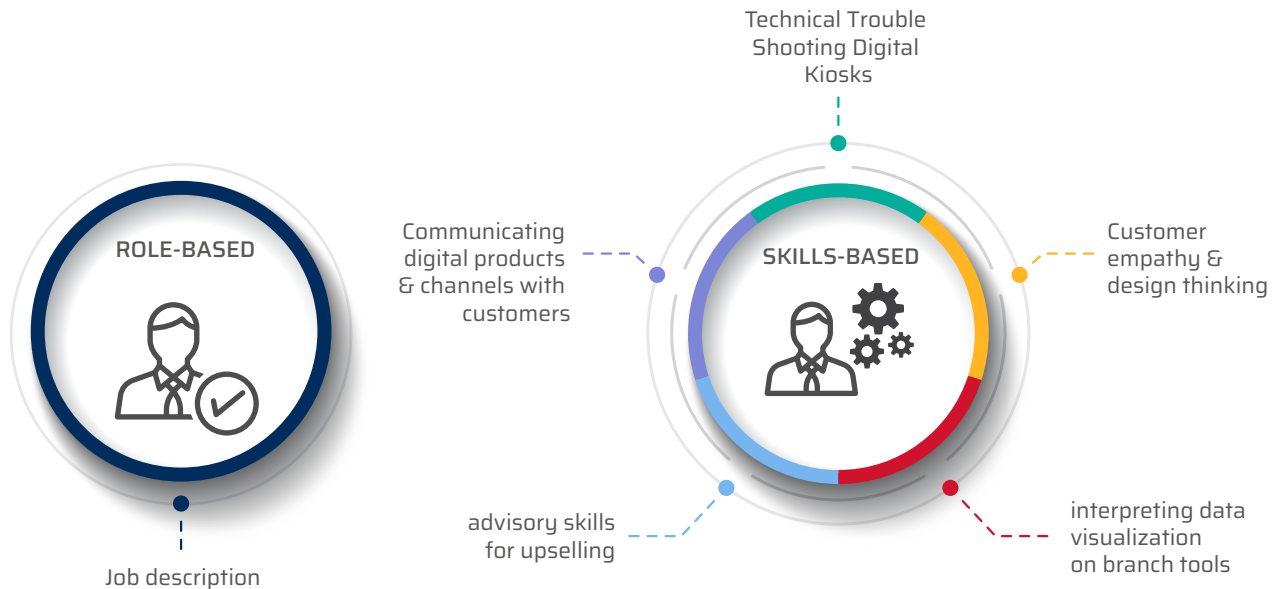


Figure 34 - The old role based approach to jobs versus the new Skills-Based approach (Source: Skills Bahrain Analysis)

### The New Learning Revolution in Bahrain – Work-Based

The gap between formal education and workplace requirements has been well discussed and documented in Bahrain. However, the solution for addressing future skill needs is not the responsibility of education alone. The COVID-19 pandemic has taken learning away from training providers into the workplace. The volume of people who have completed technical nano learning in our research and report its impact is testimony to the fact that individuals can and will upskill, with or without their company or government support. Most of the nano learning reported in our survey is much more closely aligned to the development of future skills than many of the external training courses funded over the past few years.

Internationally, trends in learning are moving to work-based application and the use of small pieces of targeted learning that build upon each other to create credentials that are verified by evidence of new skills. Numerous EdTech companies are serving this purpose and offering platforms that integrate learning with performance management and at the same time, stimulate employee engagement. Called EX platforms, they allow a performance and skills-based approach to organizational development and digital transformation. This approach to learning on the job has been called 'learning in the flow of work' to highlight the integration of learning and work.

One of the critical success components of work-based learning is an agreed understanding and definition of learning outputs (skills and behaviors) between the learner, their Line Manager, the HR department and the institutional performance management documentation. An agreed understanding on what skill or behavior is being learnt, and what that looks like when evidenced on the job, requires this agreed understanding and a 360-degree feedback approach to the development and evidencing of skills.

As learning moves into education 4.0<sup>50</sup>, there are possibilities to utilize virtual reality (VR), augmented reality (AR) and mixed reality (MR) to support simulated work-based learning. Dubbed XR or 'cross reality,' this type of learning is anticipated to be included in metaverse education experience. XR has the potential to bring interesting alternatives for work-based learning simulation. However, good pedagogy principles still apply to the development and evidencing of skills in a metaverse simulation, just as they would in real life work-based learning<sup>51</sup>.

### What is Work-Based Learning?

Work-based learning refers to learning while doing real work that is part of an occupation and eventually leads to the production of goods or a service. In the Financial Services sector this means skill or knowledge attainment that is applied to a real piece of work in the workplace. This could be, for example, writing a report, completing a compliance related procedure, doing research, problem solving for a customer, etc. All of these activities can be measured against a best practice standard (skill or behavior standards).

The knowledge of how to do an activity is combined with the ability to do something and demonstrated through a job output and measured against a sector agreed skill standard. The work output is then formally assessed by a qualified assessor from a training provider or in house.

Work-based learning is always based on a sector agreed set of standards and is employer led. The demonstration of skill is more important than how that skill was attained. The skill may be attained through formal classroom training, online, self-directed, mentoring etc.

### **The focus is on the demonstration of the skill on the job, not the training process.**

Work-based learning as the basis for formal education is now one of the preferred Higher Education routes internationally. The rise of degree level apprenticeships shows how work-based learning can be used for various professions as the classroom learning from a degree programme is assessed on the job.

For more information, see: <https://www.etf.europa.eu/en/publications-and-resources/publications/work-based-learning-handbook-policy-makers-and-social-O>

### Learning as a Journey rather than a One-Off event

Respondents to the research indicated the importance of learning being embedded within the organization and a critical part of talent strategy. The ability to design meaningful learning journeys is a skill that is often not included in the expected skill set of HR professionals in Bahrain. With easy access and financial support for training, some financial institutions have outsourced the development of learning journeys to training institutions. This is particularly the case with leadership training where the development of the learning programs were often removed from the institution's talent strategy and future skills requirements, limiting the ability to assess on the job impact of learning. Good

practice learning in modern organizations is seen as an iterative journey that is informed by continuous feedback through regular performance management conversations with Line Managers who understand and are engaged with the learning journeys of their team.

The following outlines an example of an 'ideal' organization and breaks down the elements to show how work-based learning can be developed and evidenced. The Core Skills and Behaviors Framework developed in the course of the research for this Sector Skills Report is designed to underpin a process like this.

### Development of Work-Based Learning - delivered and evidenced

- 1 To keep up with business strategy, the HR Manager of Financial Services Organization X in Bahrain recognizes the need to create meaningful learning journeys across all the Job Families based on the future of the jobs and the detailed strategy of Financial Services Organization X.
- 2 Working with the department Heads, the Learning and Development professionals at Financial Services Organization X create a year-long learning journey for each department based on the digital maturity and growth of the Bank and its current talent strategy.
- 3 As part of addressing the data analytics needs of a specific department, a learning journey is designed to develop a non-digital employee to embed data analytics into their job in stages over the next year. A pre learning assessment tests the employee's understanding and ability with data analytics, based on the levels of proficiency outlined in the skills descriptors for 'finding and using data' to ensure the learning journey is designed to target the right level of skill.
- 4 Because Financial Services Organization X has a clear definition of what digital skills mean at different levels (a skills taxonomy), the expectation of what needs to be learnt, and the application of learning on the job is clearly understood by the Line Manager, the employee and the HR team.

### Designing the Learning Journey

5. A development journey is built using skill and behavior standards that are aligned to the organization's performance requirements. Because a learning journey approach is taken, there are regular assessments of the impact of learning embedded throughout the learning cycle. These include check in coaching conversations with Line Managers as part of the performance management system. The learning journey includes a combination of structured and unstructured learning such as nano/micro learning, formal qualifications, coaching and mentoring, and the learner's self-reflection and skill portfolio.
6. To prepare for this, a learner's Line Manager is upskilled on mentoring learning and a skills-based approach, including how to recognize and assess the application of skills on the job. They are briefed on the learning journey and their active role in it.
7. The tools used for learning can include a number of different mechanisms including online learning, mentoring, formal training, self-directed learning, etc. The following outline some examples of how these could be used in the learning journey:
 

**Nano/Micro learning** - The learning journey could involve taking what would normally have been a 3-day face to face course and breaking it into micro or nano learning nuggets of 2 to 10 minutes. The learning has been carefully designed to embed the development of employees into the roll out of the digital strategy and pace of change. Learning sound bites are delivered to the learner's mobile phone as short videos, article, games and insights on a daily basis. This builds up over months to move learners forward to the requirement to evidence learning through work-based application.

**Formal Training** - The employee complements the above with a formal training course with a training provider. Because the training provider has designed the course around agreed training standards outlined in the National Occupational Standards, the course content is well aligned to the needs of Financial Services Organization X.
- 8 Qualification - This micro/nano learning, complemented by the formal learning, leads to a formal qualification in data analytics that is listed on Bahrain's National Qualifications Framework. The course is aligned to the business objectives and performance standards of the organization.
- 9 Throughout the learning journey the Core Skills and Behaviors required by the sector are embedded in all learning programs, including nano/micro learning and the analytics qualification. Opportunities for evidencing leadership and soft skills on the job

Evidence of Performance and Learning	
10	Learning is demonstrated through formal graded assessment of the data analytics technical skills applied on the job. This assessment is 100% related to a work-based activity and aligned to business objectives. The assessment is graded by an external 'learning and assessment coach', from a training provider, who comes to the workplace and looks at the project and formally assesses it. The learner's Line Manager is involved in providing input into this assessment.
11	Work-based application and evidencing of leadership skills or soft skills can be done through psychometric assessment, observation or 360 feedback by Line Managers or colleagues' feedback. Alternatively, an accredited learning professional at a training institute can act as a 'learning coach' to help individuals evidence their leadership or soft skill learning as part of the learning journey.
12	Whatever form the evidencing of the skill takes, it is automatically linked to the learner's digital portfolio that collects their skills and development over time and can be used as part of an organizations performance management system.
13	Learners receive regular feedback of learning and how it relates to their performance from Line Managers, 'learning and assessment coaches', trainers and Financial Services Organization X's HR team.
14	The outcomes and impact of learning are evidenced through improved business performance and RoI, in addition to demonstrated evidence of skill acquisition.

Table 15 - An example of an on the job learning journey.

Evidencing Skills through Education

Discipline-based education is rapidly becoming outdated and the need for skill-based approaches to education are becoming mainstream. The vocational education sector has been at the forefront of work-based learning, providing hands-on, job-based skills training. Traditionally vocational education and apprenticeship schemes have been linked to the blue-collar sector, but now Bachelor's degree level apprenticeships as an alternative to tradition higher education are becoming the norm. Internationally, Higher Education is moving towards focusing on evidencing skills of graduates, rather than just the qualification. This change requires a much closer relationship between academia and industry. Skills portfolios are being used widely across education, including at the PhD level in response to the growing need for skills-based recruitment and employments. While this type of approach is obvious for professionals with tangible outputs as evidence of skill, it is also relevant for soft skills and leadership skills.

Skill-Based Assessments (Competency-based assessment)

Skill-based assessments require innovative assessment techniques that go beyond the traditional examination. Evidence-based assessments enable participants to demonstrate skills without the need to memorize standard exam questions. This type of vocational assessment has been applied in the traditional apprenticeship learning model for many years. However, with the use of technology, there are now sophisticated methods for skills-based assessments for core foundational soft skills. Some of the techniques used for evidencing and assessing these skills include 360-degree feedback, peer review, customer feedback, verified learning narrative, documented reflective insights, professional conversations, observation, and mentor coaching conversations.

This evidence-based approach to soft skill assessment is a new concept in Bahrain and requires a significant cultural change to take place before it can be formally recognized. In order to start a process of skill-based assessment, there needs to be a skills and behavior taxonomy in place to ensure a sector wide mutually agreed understanding of what skills and behaviors look like in practice. This creates a clear baseline that supports harmonized assessment outcomes. This process would then be formalized as part of education and BQA systems and also shared with the industry, so there is an agreed understanding of what a specific skill means and looks like at different levels of proficiency.

Formal and Informal Skill Development

The following diagram explains how formal education systems can be complemented by on the job, less formalized learning systems. As individuals move from graduation (novice) to expert, skill development is first developed through less formal learning on the job and is then increased to the expert level, where learning may occur through reading industry insights or through networking conversations with senior peers. The research in Bahrain indicates that the key area needing learning support is the Middle Management level, represented in this chart as 'literate' or 'capable'. This chart would indicate there is a significant role for less formal micro credentialling as part of the learning process for this middle layer of the sector <sup>52</sup>.

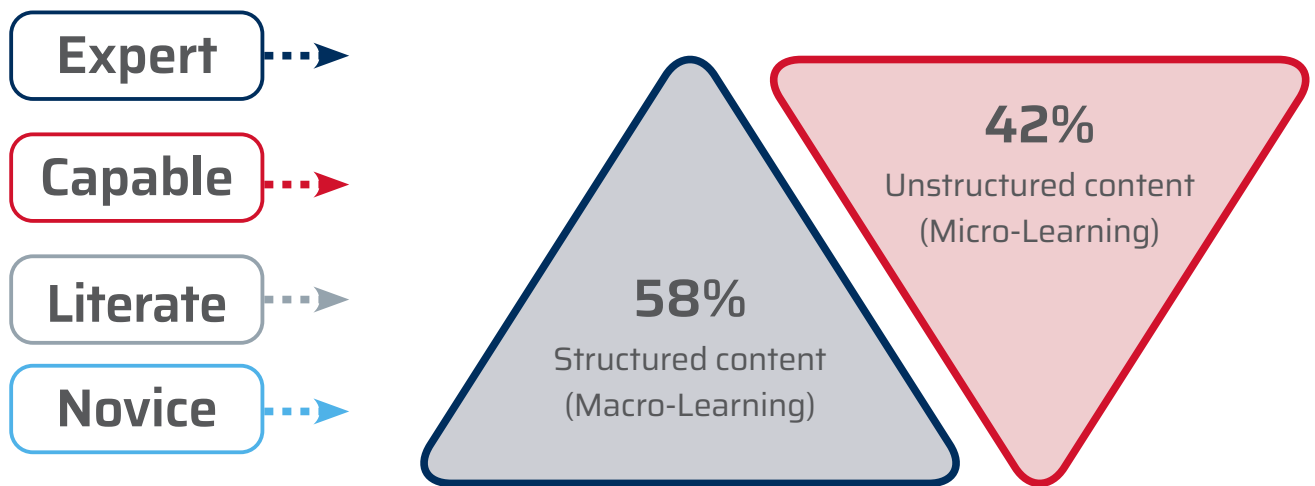


Figure 35 - The new cycle of on the job learning Source: (Bersin, 2021)

Going forward, the sector will need to decide on what is essential to grow and develop the industry in the future. From there it can rationalise the huge number of programmes previously offered to the most essential ones for business growth based on internationally certified routes, supporting more effective career pathways. The sector will also need to decide on the structure of an agreed skills framework to provide a common language and structure for the development of skills.

#### Conclusions - Readiness for Future Skills and Work-Based Learning

The skills needed within training providers, HR professionals and executives to meet the future skill demands of the sector are different to what has been required of training providers in the past. The key skill needed is the ability to align industry performance standards with training standards and turn this into development programs and pathways that are closely matched to business outcomes. This requires training professionals to have both HR skills, strategy skills, skills in designing curricula and collaboration skills for working with accreditation and awarding bodies to form a skill development system. Skills Bahrain research indicates that these skills are not widely applied across Bahrain's training and HR sectors.

The presence of BQA and the requirements of training providers to map standards against programs has resulted in significant capacity building for training providers. However, this did not include the additional mapping of employer standards against training and work-based learning QA by BQA proposed by Skills Bahrain to better serve industry.

It is apparent from findings that agreed definitions of what is meant by certain skills and what they look like on the job is crucial. Internationally, practices and mechanisms for learning and development on the job have become the key solution to upskilling and reskilling post pandemic. Pre-pandemic it is apparent that the sector took a somewhat random and individual company approach to learning and development. The lack of evidence of learning and impact leads one to question the effectiveness of this approach.

Moving forward, Skills Bahrain can support the sector to help it adopt a more effective learning and development approach to address the sector-wide challenge of reskilling, upskilling and new skilling.





Chapter

# The Way Forward and Key Priorities



## The Way Forward

This Chapter looks ahead to the key areas of development for the future. The research demonstrates that organizations are already implementing a number of the recommendations below. However, a sector wide approach is necessary to ensure that the whole of the Financial Services Sector is ready to move into the future and continue to be competitive.

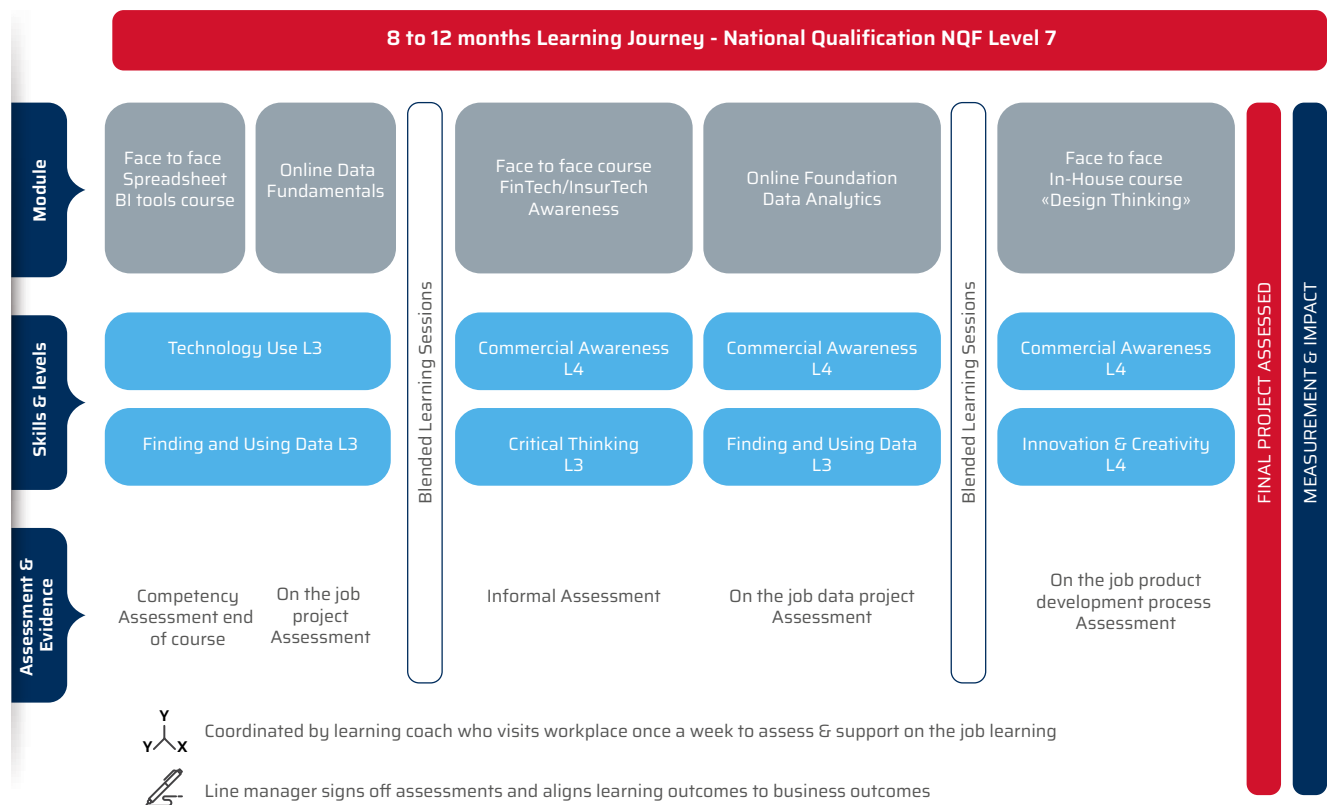
### 1. Avoid Job Loss and Prepare for Job Convergence - Sector wide data and digital upskilling

To avoid job loss and the potential impact on the economy from people moving out of the sector, there is a need to upskill the sector with a consistent sector wide approach. Based on agreed standards, data analytics need to be taught across all business

units. Sector agreed standards, as outlined in the core skills and behavior framework, are needed to be used to guide this sector-wide upskilling journey. The skill of 'finding and using data', combined with 'critical thinking' and 'commercial awareness', needs to be taught in a work-based learning context.

The program should follow Skills Bahrain design principles for a work-based integrated 'learning journey' over a one off training event. The following is an example of how this type of learning journey might look.

#### Example



**Recommendation**

A national data accelerator program that is integrated with 'commercial awareness' skill to be designed and delivered across the sector.

**2. Build Learning and Development around Sector Agreed Skills and Behavior Framework**

The Sector has very clearly articulated the need to move from a job-based to a skills-based approach that is properly embedded in the learning whether that be within entry pathways or properly embedded in workforce upskilling and reskilling solutions. Sector agreed standards create a benchmark of the level of skills and behaviors considered acceptable for all employees. Job specific technical skill standards, such as those used in the National Occupational Standard for each job, outline the job specific skills and define the level of proficiency for that skill.

A standards-based approach to learning and development allows an agreed taxonomy across the sector of skills and the expected proficiency at each level. They also facilitate conversations between the sector and training and development professionals as the development requirements are clearly articulated based on the skills descriptors. Skills and behavior standards can also be used by sector professionals for performance management or align them to an existing competency framework.

**Recommendation**

Skills Bahrain to support the sector and training providers in understanding skills and behavior standards and occupation specific National Occupational Standards (NOS) and how to use them for a skills-based approach to learning, development and performance management.

**3. Investment in Learning and Development linked to improved Business outcomes**

The investment in education, and training has been significant by both the Government and employers but, as highlighted by the sector, which could benefit from increased strategic focus. In the past, too much has been invested in tackling entry level issues and not enough on upskilling and reskilling within a portfolio of evidence-based work-based learning which can have a measurable impact on investment linked to more effective performance management.

**Recommendation**

It is recommended that mechanisms for directly linking talent strategy to business strategy be central to all training and development decisions.

**4. Evidence of Impact and Skill Progression in the Workplace**

More robust mechanisms need to be in place to demonstrate skill attainment and development from investment in learning and development. Ideally, assessments are directly aligned to an individual's work. Current training models do not lend

themselves to the alignment of skill attainment and the workplace. Within a work-based learning model, the attainment of skills is demonstrated through application of the skill on real work. There are various vocational assessment techniques that can be applied to bring workplace and evidence of learning closer together. These may include: observation, professional conversation, training others, and project-based work outputs.

**Recommendation**

Mechanisms for linking learning and development to impact all learning and development investments. These mechanisms include meaningful applied work-based assessment practices and using skill standards to design pre and post assessments. Other mechanisms for assessing impact of learning on the job include: psychometric tests, Return on Investment (ROI) metrics; and performance appraisal systems linked to skill standards.

**5. The Changing Role of Training Providers**

Effective training is aligned to the workplace. The Financial Services sector in Bahrain should move from a traditional classroom-based model to a work-based application model that includes numerous learning modalities including online, mentoring, self-directed learning, etc. Training providers should change from face-to-face delivery to taking a 'learning and assessment coach' role and going to the workplace of learners for more aligned learning and assessment. QA of training providers are advised to include their competence in supporting work-based learning. BQA and other regulatory organizations need to align their quality systems to include work-based learning.

**Recommendation**

Bahrain training providers upskill to ensure they are prepared to support work-based learning and assessment models to support meaningful work-based learning such as apprenticeships.

**6. Upskill People Managers in the Sector to support Work-Based Learning**

Work-based learning can only be as effective as those supervising and mentoring learners. Bahrain employers in the sector need support to understand work-based learning and assessment models and how standard-based skill development is demonstrated and assessed in the workplace. As Line Managers will play an important role in the learning process, they need to be supported by the ecosystem to effectively mentor learners and recognize the attainment of skill on the job.

Likewise, the Human Resource professionals in the sector will need support to develop work-based learning as the key learning and development strategy for their organizations. HR will need to understand how skills and behavior standards can be used to support on the job skill development and performance management.

### Recommendation

- Support people managers across the organization with mentoring and on the job learning support skills
- Support HR managers in the sector to understand how to use skills and behavior standards and the principles and practices of work-based learning
- Support HR managers to help them understand how to design and support a learning journey approach to learning and development and move away from one off training events

### 7. Sector Integration with Higher Education

The sector needs more input into Higher Education programming. This may include insisting that sector-agreed skill standards form the basis for curricula. University business collaboration is essential to ensure better alignment between what is taught in Business Administration education and what the sector needs. This includes both core skills and behaviors (also called employability skills) and discipline specific technical skills.

### Recommendation

- Establish a sector lead Sector Skills Taskforce to review and endorse the skills and behavior standards and National Occupational Standards that can be shared with Higher Education Institutions for use in curriculum and assessment design
- Skills Bahrain to support Higher Education institutions to understand how to use standards and embed them into the curriculum

### 8. Career Development and Career Guidance

The lack of information about jobs and career pathways in the sector makes it difficult for graduates to properly assess the best route for them in the labor market, and how their skills best meet labor market demand. Career guidance in Bahrain needs to follow international best practice where agencies work together to ensure quality career guidance is delivered to job seekers, school students, higher education students, parents and employees. A recent review of career guidance in Bahrain by the Ministry of Labour (MOL) and Ministry of Social Development (MOSD) identified weaknesses in the system in Bahrain and made recommendations that included implementing the UK-based Gatsby Standards for career counselling<sup>53</sup>. These standards provide a benchmark for a national system of career guidance and include applying labor market intelligence to career advice, ensuring those working in career guidance are professionally trained and qualified for the role, and offer meaningful career insights to students and employees.

### Recommendation

National agencies responsible for career guidance to develop a robust career guidance system for Bahrain. Skills Bahrain publications can be used to inform various audiences on sector specific career pathways and occupations.

### Workforce Planning and Areas of Development: summary of solutions

Skills Bahrain aims to address the sector skills challenges identified in this report in partnership with CBB, employers and training providers.

The following outlines the proposed intervention logic.

Areas to address	Description	Policy Response/Potential Solution
<b>Hard to Fill Vacancies:</b> <ul style="list-style-type: none"> <li>• Customer Service</li> <li>• Relationship Manager</li> <li>• Compliance</li> <li>• Operations</li> <li>• Claims and Underwriting</li> </ul>	These are jobs that the sector stated they have trouble filling.	Work-Based Learning model following a set of agreed training/National Occupational Standards for each role
<b>Core Future Skills: Finding and Using Data</b> Moving the sector to level 3 on the Core Future Skills and Behavior Framework, with an emphasis on 'Finding and Using Data' and 'Commercial Awareness' to ensure effective application of data.	Using assessment tools, move the sector to the appropriate levels for the job positions. This needs to be built as an integrated learning journey that includes a mix of learning modes and is based on the standards and levels in the Core Skills and Behavior framework	Embedded in all solutions for the sector <ul style="list-style-type: none"> <li>• Form the basis for an integrated learning journey to upskill the sector on 'Finding and Using Data' as a future core skill</li> <li>• Embedded standards from the framework into all BIBF programmes</li> <li>• Embedded standards from the framework into Higher Education and entry programmes into the sector, including BPO training</li> </ul>
<b>Leadership - Business Models, Strategy and Leadership Upskilling</b>	Using the skill standard for 'commercial awareness', support the understanding of how to work with TPPs and integrate FinTech into legacy business models' needs to be better understood by Leadership in the sector from Middle Management to BoD level	<ul style="list-style-type: none"> <li>• Work-based learning models</li> <li>• Sector wide upskilling programme</li> <li>• Based on standards in Core Skills and Behavior Framework</li> </ul>
<b>Organization and HR Learning and Development Capacity Building</b>	Two aspects: 1. Line Managers need to understand what skills look like on the job and how to support the assessing and evidencing of skills within a framework of standards 2. HR or L&D need to understand how to build learning blocks for work-based learning, assessment and evidencing. They also need to learn how to align National Occupational Standards with performance management systems and assess the impact of work-based learning	<ul style="list-style-type: none"> <li>• Line Manager work-based learning support programme will upskill Line Managers in Mentoring and how to support work-based learning models.</li> <li>• HR/L&amp;D teams support with designing and supporting work-based learning</li> <li>• Learning and Assessment Coaches from training providers come into the workplace to support and assess learning in the context of a job and the skill standards outlined for the development of a skill</li> </ul>
<b>Training Provider capacity building</b>	The training and HE sector need to learn: <ul style="list-style-type: none"> <li>• How employers use standards for quality and performance</li> <li>• How to translate National Occupational Standards into learning outcomes and curricula</li> <li>• How to assess workplace learning against standards</li> <li>• How to impact assess work-based learning</li> </ul>	<ul style="list-style-type: none"> <li>• Formal training (certification) for training providers in work-based learning models</li> <li>• Formal training (certification) in designing and assessing curriculum around skill standards</li> <li>• Formal training (certification) in Work-Based assessment and facilitation (Learning Coach training)</li> </ul>
<b>Entry into the Sector</b>	<ul style="list-style-type: none"> <li>• Ensuring program relevance for Higher Education and closer alignment of curricula to employer needs</li> <li>• Support Higher Education Institutions to use skills and behavior standards and embed them in curriculum and data insights.</li> </ul>	<ul style="list-style-type: none"> <li>• Review and recommend policy and legislative changes for apprenticeships</li> <li>• Explore High School to sector apprenticeship pathways</li> <li>• Formalize curriculum engagement between Higher Education and sector</li> <li>• Embed core skills and behaviors in Higher Education programs</li> </ul>

**Table 16** – The summary of the identified areas in this research for focus in the sector's workforce planning.

## Appendix

### Example of a Skill Level Descriptor for Finding and Using Data

Skill/ Behavior Standard	Finding and Using Data Skill					مهارات البحرين Skills Bahrain
Pillar	Performance Drivers					
Definition	The competent use of sourcing, analyzing and using data to enhance business insights					
Descriptor	Level 1 (Level 3&4) High School	Level 2 (NQF Level 5&6)	Level 3 (NQF Level 7) SECTOR MINIMUM	Level 4 (NQF Level 8)	Level 5 (NQF Level 9)	
Description	The ability to identify, extract and analyze simple information	The ability to extract, analyze and make sense of information to form a holistic statistical descriptive analysis and generate findings	The ability to access, manage, understand, integrate, communicate, evaluate, and perform descriptive and inferential analysis appropriately. Seeks to include data insights as part of a routine work practice	The ability to apply advanced data analytics solutions to routine business requirements through diagnoses of business data needs and using relevant programming languages to access, mine, clean, validate, model, integrate, communicate, and analyze information to visuals that can be used to offer business insights and support decision making	An expert level ability to apply detailed data analytics solutions to 'big data' modelling and management, data warehousing, data staging, predictive modelling, and business scenarios analytics. Is able to model, integrate, communicate, analyze complex unstructured information. Designs new models and tools to extract deep data insights	

## Example of a Skill Level Descriptor for Finding and Using Data - Knowledge Area

Descriptor	Level 1 (Level 3&4) High School	Level 2 (NQF Level 5&6)	Level 3 (NQF Level 7) SECTOR MINIMUM	Level 4 (NQF Level 8)	Level 5 (NQF Level 9)
Knowledge	<ul style="list-style-type: none"> <li>• Foundation knowledge of data terminologies, research and enquiry methods</li> <li>• Basic knowledge of spreadsheets</li> <li>• Understands qualitative versus quantitative data</li> <li>• Using search engines</li> </ul>	<ul style="list-style-type: none"> <li>• Applied knowledge of research methods</li> <li>• Applied knowledge of basic statistics</li> <li>• Uses spreadsheets and BI tools to perform calculations and graphs</li> <li>• Understands the types and sources of data used in business</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of simple mathematical and statistical techniques for descriptive statistics</li> <li>• Understands the principles of median/mode/mean, variance, and standard deviations</li> <li>• Understanding of the core principles of data analytics and its business application</li> <li>• Analyzing charts and graphs for business insights</li> <li>• Understands data flows and structures</li> <li>• Understands data models and their relationships to datasets and data tables</li> <li>• Ability to perform basic ETL operations on datasets</li> <li>• Applied knowledge of the commercial uses and application of data in Financial Services</li> </ul>	<ul style="list-style-type: none"> <li>• Basic application of query languages and other data related languages</li> <li>• Basic applied knowledge of mathematical and statistical techniques for descriptive, prescriptive, predictive, and diagnostic analytics</li> <li>• building data models using datasets</li> <li>• Ability to explore and structure data into manageable formats</li> <li>• Ability to perform advanced ETL operations on datasets</li> <li>• Ability to integrate APIs into data models</li> <li>• Create advanced visualizations to aid in decision making</li> <li>• Applied knowledge of the commercial uses and application of data in Financial Services</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced application of query languages and other data related languages</li> <li>• Advanced applied knowledge of mathematical and statistical techniques for descriptive, prescriptive, predictive, and diagnostic analytics</li> <li>• Ability to perform expert-level ETL operations on datasets</li> <li>• Analyze and structure complex data into manageable formats</li> <li>• Develop, select and/or apply algorithms and advanced computational methods to enable systems or software agents to learn, improve, adapt and produce desired outcomes or tasks (machine learning)</li> <li>• Ability to critique and perform in-depth analysis of visualizations to aid in decision making</li> <li>• Apply data modelling techniques to explore and address specific data requirement</li> <li>• Applied knowledge of the commercial uses and application of data in Financial Services</li> </ul>

### Example of a Skill Level Descriptor for Finding and Using Data - Ability or Competence Area

Descriptor	Level 1 (Level 3&4) High School	Level 2 (NQF Level 5&6)	Level 3 (NQF Level 7) SECTOR MINIMUM	Level 4 (NQF Level 8)	Level 5 (NQF Level 9)
<b>Abilities</b>	<p>Demonstrated by:</p> <ul style="list-style-type: none"> <li>• Uses spreadsheets to perform basic calculations</li> <li>• Performing simple research and reporting findings</li> <li>• Using known structured quantitative and qualitative data sources appropriately</li> </ul>	<p>Demonstrated by:</p> <ul style="list-style-type: none"> <li>• Applying basic research methods for data collection</li> <li>• Supporting data preparation from existing sources</li> <li>• Understands principles of data quality and credibility</li> <li>• Assists with the creation of intelligence reports using standard business tools</li> <li>• Identifies simple patterns in data to draw meaning</li> <li>• Uses spreadsheets to perform simple data calculations</li> <li>• Uses spreadsheets to create a graph</li> <li>• Understands how internet search engines work</li> <li>• Understands the principles and laws of personal data protection</li> </ul>	<p>Demonstrated by:</p> <ul style="list-style-type: none"> <li>• Using spreadsheets and/or BI tools to perform simple analytics and visualize data</li> <li>• Applies data visualization to draw conclusions for reporting on business intelligence</li> <li>• Effectively sourcing credible data</li> <li>• Uses data visualization tools to design and create data visuals</li> <li>• Communicates conclusions of data, both through visuals and narrative, effectively to a target audience to augment comprehension of new information</li> <li>• Demonstrating algorithmic literacy (understanding bias in AI systems or how a search engine system works) in how they source and critically evaluate data and information</li> <li>• Understanding the terminology of data analytics and knows how to communicate with technical expertise</li> <li>• Follows national level and organizational-level data and privacy related policies and regulations</li> </ul>	<p>Demonstrated by:</p> <ul style="list-style-type: none"> <li>• Applying query languages or other programming/ coding languages to perform data analytics</li> <li>• Mines and cleanses data for analytical use</li> <li>• Applies excellent mathematical and statistical skills to programming and analysis work</li> <li>• Turns unstructured data into data models</li> <li>• Communicates conclusions of data, both through visuals and narrative, effectively to a target audience to augment comprehension of new information</li> <li>• Applies sector, organization and product knowledge to data insights</li> <li>• Creating algorithms and predictive models for future business insights</li> <li>• Translating business needs into data models for deeper data insights</li> <li>• Follows national level and organizational-level data and privacy related policies and regulations and apply international standards and best practices related to data usage</li> <li>• Follows national level and organizational-level cybersecurity related policies and regulations</li> </ul>	<p>Demonstrated by:</p> <ul style="list-style-type: none"> <li>• Translating business needs into data models for deeper data insights</li> <li>• Effectively applying query languages or other program languages to design and perform macro level data analytics</li> <li>• Communicates conclusions of data, both through visuals and narrative, effectively to a target audience to augment comprehension of new information</li> <li>• Applies advanced techniques data cleansing and data mining for analytical use</li> <li>• Creating advanced algorithms and predictive models for future business insights</li> <li>• Where relevant applies command line tools, data infrastructure tools such as cloud platforms, big data frameworks and machine learning tools</li> <li>• Applies sector, organization and product knowledge to data insights skills to programming and analysis work</li> </ul>

## References

- <sup>1</sup> Future of Jobs. (2020). World Economic Forum. Retrieved from WEF\_Future\_of\_Jobs\_2020.pdf (weforum.org)
- <sup>2</sup> Bahrain's National Skills Report : Skills Gap. (2020). Economic Development Board
- <sup>3</sup> Naumann, C., Al-Ubaydli, O., Abdulla, .. G., & Alabbasi, A. (2018). Bahrain Human Development Report. The Bahrain Center for Strategic, International, and Energy Studies (Derasat), United Nations Development Program (UNDP).
- <sup>4</sup> PWC (2017). Empowering the GCC digital workforce: Building adaptable skills in the digital era. PriceWaterhouseCoopers. <https://www.strategyand.pwc.com/m1/en/ideation-center/ic-research/2017/gcc-digital-job-market.html>
- <sup>5</sup> The Central Bank of Bahrain (CBB) (2020, January 13). CBB : Plan for Digital transformation to financial institutions (workshop). BahrainWeek. <https://www.bahrainthisweek.com/cbb-presents-plan-for-digital-transformation-to-financial-institutions/>
- <sup>6</sup> Hu, H., Jadoul, Q., & Reich , A. (2021, August 17). How banks can build their future workforce. Mckinsey & Company. <https://www.mckinsey.com/industries/financial-services/our-insights/how-banks-can-build-their-future-workforce-today>
- <sup>7</sup> AI in Customer Experience for Financial Services. (2020, November 9). CAPGEMINI <https://www.capgemini.com/news/press-releases/capgemini-research-ai-in-customer-experience-for-financial-services/>
- <sup>8</sup> FinTech Bay. (2022). FinTech Bay Ecosystem Report . Bahrain : FinTech Bay.
- <sup>9</sup> The Central Bank of Bahrain (CBB). (2020). Bahrain Open Banking Framework . Retrieved from The Central Bank of Bahrain (CBB): <https://bahrainob.atlassian.net/wiki/spaces/BH/overview?homepagelId=295043>
- <sup>10</sup> Batelco to focus on Beyon Money, end bwallet. (2022, August 14). Retrieved from TradeArabia: [http://www.tradearabia.com/news/BANK\\_399544.html#:~:text=Beyon%20Money%2C%20the%20first%20digital,20%2C000%20said](http://www.tradearabia.com/news/BANK_399544.html#:~:text=Beyon%20Money%2C%20the%20first%20digital,20%2C000%20said)
- <sup>11</sup> Batelco. (2022, January 20). Batelco Expands Digital Transformation with the Launch of 3 Digital Companies. Retrieved from BATELCO: <https://batelco.com/news-media/batelco-expands-digital-transformation-with-the-launch-of-3-digital-companies/>
- <sup>12</sup> Visa. (2021, September). The Back to Business Study, 5th Edition. Retrieved from Visa: <https://usa.visa.com/dam/VCOM/blogs/visa-back-to-business-study-one-yeareditionsep21.pdf>
- <sup>13</sup> EDB. (2020, May 11). GCC set for fintech surge during global Covid-19 outbreak. Retrieved from Bahrain Economic Development Board: <https://www.bahrainedb.com/latest-news/gcc-set-for-fintech-surge-during-global-covid-19-outbreak>
- <sup>14</sup> Central Bank of Bahrain issues new amendments to the directives on Financing Companies under CBB Rulebook Volume 5. (2022, February 8). Retrieved from Central Bank of Bahrain : [https://www.cbb.gov.bh/media-center/central-bank-of-bahrain-issues-new-amendments-to-the-directives-on-financing-companiesunder-cbb-rulebook-volume-5/-](https://www.cbb.gov.bh/media-center/central-bank-of-bahrain-issues-new-amendments-to-the-directives-on-financing-companiesunder-cbb-rulebook-volume-5/)
- <sup>15</sup> CBB. (n.d.). Volume 6—Capital Markets. Retrieved from Central Bank of Bahrain: <https://cbben.thomsonreuters.com/rulebook/central-bank-bahrain-volume-6-capital-markets>
- <sup>16</sup> GCR Index - Solidus Labs . (2022, July ). The 2022 Global Crypto Regulation Index - UAE . Retrieved from Solidus Labs : <https://www.soliduslabs.com/global-crypto-regulation-index# uae>
- <sup>17</sup> EBD. (2019, August 04). Bahrain crypto exchange Rain secures MidEast's first licence. Retrieved from Economic Development Board: <https://www.bahrainedb.com/latest-news/bahrain-crypto-exchange-rain-secures-mideasts-first-licence>
- <sup>18</sup> FTX Backs CoinMENA In \$9.5M Seed Round To Build A Crypto Exchange For The Middle East. (2021, November 8). Retrieved from Forbes: <https://www.forbes.com/sites/tatianakoffman/2021/11/08/ftx-backs-coinmena-in-95m-seed-round-to-build-a-crypto-exchange-for-the-middleeast/?sh=61e0d8734e66>
- <sup>19</sup> Binance. (2022, May 26). Binance Bahrain Becomes the First Crypto-asset Service Provider to Hold a Full Category 4 License. Retrieved from Binance : <https://www.binance.com/en/blog/ecosystem/binance-bahrain-becomes-the-first-cryptoasset-service-provider-to-hold-a-fullcategory-4-license-421499824684903903>
- <sup>20</sup> United Nations . (n.d.). THE 17 GOALS. Retrieved from Department of Economic and Social Affairs - Sustainable Development. Retrieved from United Nations: <https://sdgs.un.org/goals>
- <sup>21</sup> SDGs. (n.d.). Bahrain's Efforts to Achieve Sustainable Development Goals 2030. Retrieved from Kingdom of Bahrain Sustainable Development Goals (SDGs): <https://www.sdgs.gov.bh/>
- <sup>22</sup> Sustainable Development Committee - Bahrain Association of Banks . (2018 January ). FINANCE SUSTAINABLE . Bahrain: Bahrain Association of Banks . Retrieved from [http://www.banksbahrain.org/wp-content/uploads/2020/09/Final-Sustainable\\_Finance\\_Policy\\_Paper\\_Jan\\_2018.pdf](http://www.banksbahrain.org/wp-content/uploads/2020/09/Final-Sustainable_Finance_Policy_Paper_Jan_2018.pdf)
- <sup>23</sup> Bahrain Bourse. (2020, June). Supporting sustainable capital markets report. Bahrain: BAHRAIN BOURSE. [https://www.bahrainbourse.com/resources/files/Sustainability/ESG\\_11%20June%202020.pdf](https://www.bahrainbourse.com/resources/files/Sustainability/ESG_11%20June%202020.pdf)
- <sup>24</sup> BIBF. (n.d.). Sustainable Development Academy . Retrieved from Bahrain Institute of Banking and Finance - BIBF: <https://www.bibf.com/sdacademy/>
- <sup>25</sup> Mahadevan, D., Comella-Dorda, S., Vasquez-McCall, B., Jadoul, Q., & Di Marcello, F. (2019, August 27). A discussion on Agile in banking: Beyond buzzwords. Retrieved from Mckinsey & Company: <https://www.mckinsey.com/industries/financial-services/our-insights/banking-matters/a-discussion-onagile-in-banking-beyond-buzzwords>

- <sup>26</sup> Beedle, M., Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., . . . Thomas, D. (2001). Manifesto for Agile Software Development. Retrieved from The Agile Manifesto: <https://agilemanifesto.org/iso/en/manifesto.html>
- <sup>27</sup> Supreme Council for Women (SCW) (2015). Bahraini women in the financial sector. Retrieved from <https://www.scw.bh/en/MediaCenter/Publications/Pages/default.aspx>
- <sup>28</sup> St-Onge, E., & Jaekel, A. (2016, October 25). Why Women Aren't Making It to the Top of Financial Services Firms. Retrieved from Harvard Business review : <https://hbr.org/2016/10/why-women-arent-making-it-to-the-top-of-financial-services-firms>
- <sup>29</sup> Ernst & Young. (2019). The Impact of Wider Integration of Data Analytics and Automation on Manpower in the Singapore Financial Services Sector. EY. Retrieved from : IBF MAS Data and Automation Study 2019
- <sup>30</sup> Teichmann, F., Boticiu a, S., & Bruno S., S. (2023, February ). Technology in Society - RegTech - Potential benefits and challenges for businesses. Retrieved from Science Direct: <https://www.sciencedirect.com/science/article/abs/pii/S0160791X22002913>
- <sup>31</sup> FSSC. (n.d.). Future Skills Framework . Retrieved from Financial Services Skills Commision : <https://financialservicesskills.org/framework/skills/>
- <sup>32</sup> SRA - SA. (n.d.). Aptitude Example Reports -Saville Assessment . Retrieved from Saville Assessment - SRA : <https://www.savilleassessment.com/cra-aptitude-sample-reports/>
- <sup>33</sup> EDB. (2021, September 27). Citi Launches Global Technology Hub in Bahrain. Retrieved from Economic Development Board : <https://www.bahrainedb.com/latest-news/citi-launches-global-technology-hub-in-bahrain/>
- <sup>34</sup> Paul , R., & Elder, L. (2007). Critical Thinking: The Art of Socratic Questioning. Reich College of Education, Appalachian State University, 36-37. Retrieved from <http://www.jstor.org/stable/42775632>
- <sup>35</sup> UNESCO. (n.d.). Micro Credentials Opportunities and Challanges Shaping . Retrieved from United Nations Educational, Scientific and Cultural Organization: <https://en.unesco.org/news/defining-micro-credentials-opportunities-and-challenges-shapingeducational-landscape#:~:text=Micro%2Dcredentials%20are%20increasingly%20promoted,recognizing%20knowledge%2C%20skills%20and%20competences.&text=%E2%80%9CUNESCO%20aims%20to%20approach%20micro,divide%E2%80%9D%2C%20concluded%20Mr%20Chakroun>.
- <sup>36</sup> Beverly, O. (2022). Towards a common definition of micro-credentials. Retrieved from UNESCO: <https://unesdoc.unesco.org/ark:/48223/pf0000381668>
- <sup>37</sup> Bersin, J., (2019). Harvard Business Review. Retrieved from: <https://hbr.org/2019/02/making-learning-a-part-of-everyday-work>
- <sup>38</sup> The Allen Consulting Group . (2009). A Futrue Skills Strategy For Bahrain . Bahrain : The Allen Consulting Group .
- <sup>39</sup> Higher Education Council . (2015). Industry and Employer Graduate Skills Requirements. Bahrain: Ministry of Education.
- <sup>40</sup> WEF. (2021, January 21). Building a Common Language for Skills at Work A Global Taxonomy. Retrieved from World Economic Forum : <https://www.weforum.org/reports/building-a-common-language-for-skills-at-work-a-global-taxonomy/>
- <sup>41</sup> Bahrain FinTech Bay. (2018). Bahrain Fintech Talent Report 2018. Bahrain: Bahrain FinTech Bay.
- <sup>42</sup> Future of Jobs. (2020). World Economic Forum. Retrieved from [WEF\\_Future\\_of\\_Jobs\\_2020.pdf](https://www.weforum.org/reports/future-of-jobs-2020) (weforum.org)
- <sup>43</sup> World Economic Forum . (2019). WEF, 2019. Towards a Reskilling Revolution. Geneva: WEF.
- <sup>44</sup> Performance reviews - Understand the basics of performance reviews and how to ensure the process adds value to the organisation. (2022, November 2). Retrieved from CIPD: <https://www.cipd.co.uk/knowledge/fundamentals/people/performance/appraisals-factsheet#6543>
- <sup>45</sup> G laveski, S. (2019) HBR. (n.d.). Where Companies Go Wrong with Learning Development. Retrieved from Harvard Business Review : <https://hbr.org/2019/10/wherecompaniesgo-wrong-with-learning-and-development>
- <sup>46</sup> Emerson , & Stuart. (2011). The Learning and Development Book. Association for Talent Development. USA.
- <sup>47</sup> How Millennials And Gen Z Could Reinvent the Banking Industry . (2021). Retrieved from Forbes : <https://www.forbes.com/sites/forbescommunicationscouncil/2021/02/03/how-millennials-and-gen-z-could-reinvent-the-bankingindustry/?sh=72a659f44e14v>
- <sup>48</sup> Millennials, baby boomers or Gen Z: Which one are you and what does it mean? (n.d.). Retrieved from BBC: <https://www.bbc.co.uk/bitesize/articles/zf8j92p>
- <sup>49</sup> CEO vs. CTO: What's the Difference? (Plus Salary Information) . (2022, June 25). Retrieved from Indeed: <https://www.indeed.com/career-advice/finding-a-job/ceo-vs-cto>
- <sup>50</sup> WEF. (2016). Catalysing Education 4.0: Investing in the Future of Learning for a Human-Centric Recovery. World Economic Forum
- <sup>51</sup> Daniel Pimente, Fauville, G., Frazier, K., McGivney, E., Rosas, S., & Woolsey, E. (2022, April). Introduction to Learning in the Metaverse. Retrieved from Meridian Treehouse : <https://scholar.harvard.edu/files/mcgivney/files/introductionlearningmetaverse-april2022-meridiantreehouse.pdf>
- <sup>52</sup> Josh Bersin . (2022, Febrary 22). Learning in the Flow of Work. Retrieved from <https://www.slideshare.net/jbersin/learning-in-the-flow-of-work>
- <sup>53</sup> GOOD CAREER GUIDANCE. (n.d.). Retrieved from Gatsby : <https://www.gatsby.org.uk/education/focus-areas/good-career-guidance>



