

SDSB

360

Volume 2, Issue 2, 2022

Policy Outlook

A CONVERSATION WITH

SIMA KAMIL

DEPUTY GOVERNOR,
STATE BANK OF PAKISTAN

Industry Outlook with

Aezaz Hussain

Chairman,
Systems Limited

SDSB Tribute

SDSB Congratulates its Emeriti Professors

The Digital Economy: what's happening in Pakistan?

Contents

03 DEAN'S MESSAGE

04 POLICY OUTLOOK Sima Kamil

09 ENGAGE The Digital Economy: What's Happening In Pakistan

12 INDUSTRY OUTLOOK Aezaz Hussain

16 GRADUATE SPOTLIGHT Naimin Yang

18 TRIBUTE SDSB Congratulates it's Professors Emeriti

22 FACULTY INSIGHT The Fourth Industrial Revolution: Machine Learning for Global Expansion

24 STAFF PERSPECTIVE Shiza Shahzad

26 PROGRAMME SPOTLIGHT MS Technology Management & Entrepreneurship

28 IN THE PUBLIC EYE Aniqa Sandhu

31 WHAT WOULD YOU DO? KASB Securities - Using Technology to Reclaim itself as a Leading Brokerage Of Pakistan

33 FACULTY IN FOCUS Raja Usman Khalid

35 FACULTY INSIGHT Are You Sharing Fake News?

37 CENTRE FOR BUSINESS & SOCIETY Highlights from 2021

40 WHAT WOULD YOU DO? The Best Things in Life are Free

42 SELECTED SCHOLARLY HIGHLIGHTS

44 NEWS AND EVENTS @SDSB

51 SDSB AT A GLANCE

53 PEOPLE OF SDSB

Follow us:



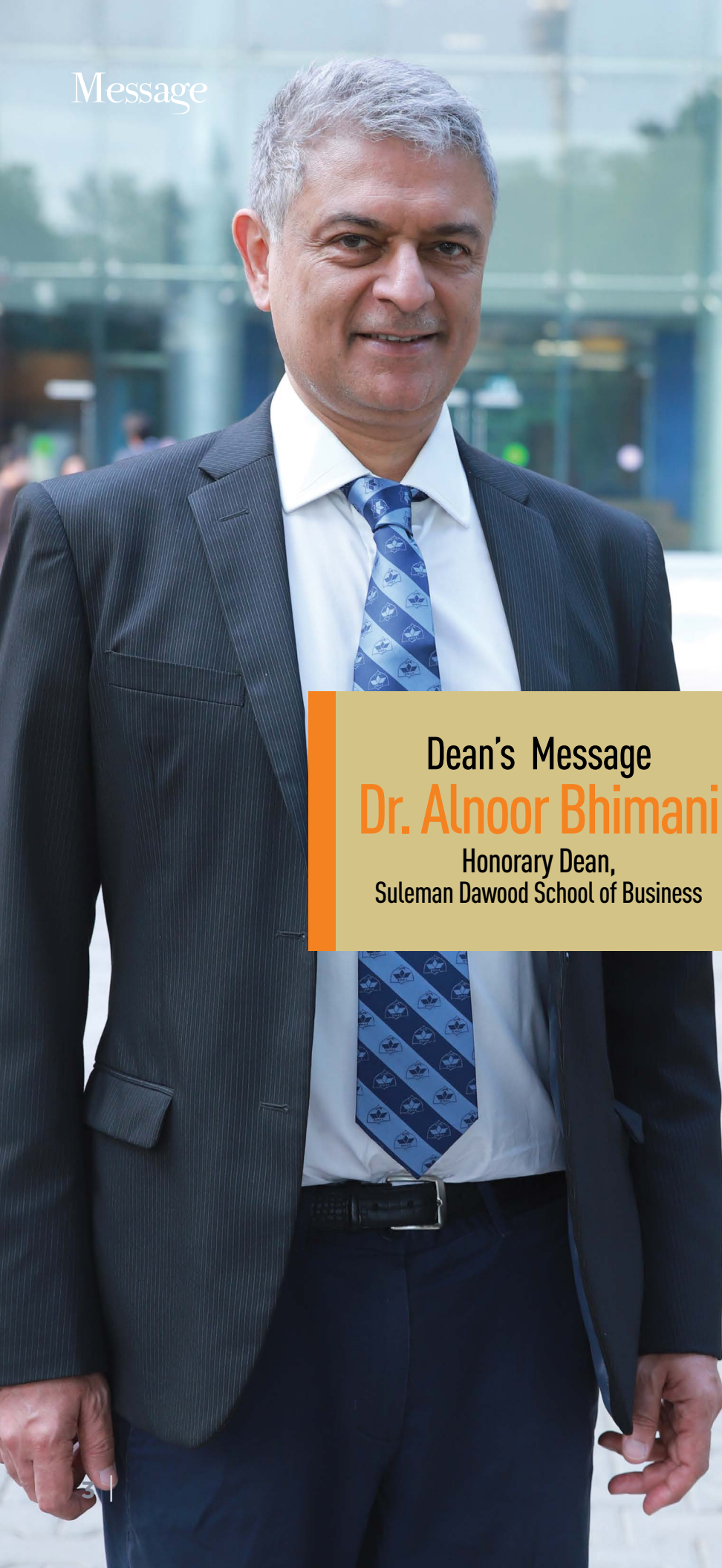
Contact us:

SDSB Communications, Suleman Dawood School of Business, LUMS

Dha, Lahore Cantt. 54792, Lahore, Pakistan

Ph: +92-42 111- 11- LUMS

Website: <https://sdsb.lums.edu.pk/> Email: sdsb@lums.edu.pk



Dean's Message
Dr. Alnoor Bhimani
Honorary Dean,
Suleman Dawood School of Business

This issue of 360 captures not just the energetic work and innovative thinking that is part of SDSB but points to the many opportunities SDSB helps uncover. Ms Sima Kamil, Deputy Governor of the State Bank of Pakistan, discusses how the pandemic has fast-tracked the digitisation of banking, which has led to a flurry of new product launches and increased women's participation in the labour force. In a similar light, Anika Sandhu, CEO of Digital Financial Service at Digidig Group, notes how new products that delight customers also remove the need to physically go to a bank, thereby making banking accessible across urban and rural communities. Drs Shehryar Shahid and Ussama Yaqub point to how digital economy 'hot spaces' are enabling a booming number of Pakistani B2B and B2C technology start-ups. Mr Aezaz Hussain, Chairman of Systems Limited, describes how in the 1970s, LUMS' founder Syed Babar Ali facing difficulties in importing a large computer system saw an opportunity. The challenge faced ultimately paved the way for the genesis of Systems Limited, now the fifteenth most valuable company on Pakistan's stock exchange. Broad opportunities that exist today are made visible in Dr Raja Usman's research, who highlights the importance of adopting a holistic supply chain understanding to enable Pakistani companies to increase their exports while yielding positive societal outcomes. In a world afflicted by fake news, Dr Khudejah Ali discusses how real news fares better in the absence of one-sided adverse comments. You will see also that our new MS programmes are opening doors to opportunities not available before. Much more is covered in this issue of 360 that exemplifies how grasping the present unveils opportunities for vast-ranging economic and societal betterment.

I invite you to think about what you can do better as you read the pages that follow.



BACK TO TOP



Policy Outlook

A CONVERSATION WITH

SIMA KAMIL

DEPUTY GOVERNOR, STATE BANK OF PAKISTAN

You are a role model and trailblazer for women in the banking industry. Tell us a little bit about this journey.

Thank you for your kind words – to be candid, I'm not sure I fit the image conjured by the words used in your question because it does not sound like me. I never really set out with a clear vision of wanting to be a trailblazer for women in banking. After I returned from higher studies in the UK, I got into banking as a young woman who had no clear idea of what she wanted as a career. I was fortunate to have a good education and a mother who would not allow her daughter to drift aimlessly. I joined banking as it seemed like a good industry to work in. I did face a degree of discrimination in the early years, but that faded reasonably quickly, though never completely. After that, opportunities came, and I had the courage to take the risky options offered. This included moving to Lahore to live on my own, relocating to Australia alone, moving to a major messy nationalised bank from the comfort of a foreign bank, and so on. The journey has been rewarding, exciting, and a lot of fun, and I'm thankful to God for these blessings.

How has banking changed over the last two decades for women bankers?

Now there are more opportunities for women. The transformation of domestic banks as professionally run organisations has also helped. At present, women are leading in many areas that men traditionally occupied. Of course, there are still too few women in banking, and there should be at least 50% women, which is the norm in culturally similar countries. So it has changed but not nearly as much as it should. The clear evidence of this is that there are still very few senior women bankers, and at most events and workshops, the same few continue to appear. I'm hopeful though as there are many more middle management level women in banking now, and the trend will change; however, the pace is still slow. The question should also be how women have changed banking, as it's not a one-way street.

What changes do you see in the banking industry in the post-pandemic world?

Undoubtedly, the COVID-19 recession was a challenge like none other, so there was a great deal of global uncertainty and economic hardship. We saw fiscal and supervisory authorities and central banks undertake unprecedented measures to support the global economy while introducing measures to ensure the continued flow of credit to the



economy. Together, these measures helped contain the depth of the contraction and fend off the risk of a sudden economic stop.

During the COVID-19 crisis, the importance of digitisation became more prominent. From cash transfers to telehealth and e-learning to e-commerce, the ICT-led response helped consumers, households and government authorities to minimise the socio-economic fallouts of the pandemic induced lockdowns and disruptions. This was seen in Pakistan as well, and going forward, the government's increased focus under the Digital Pakistan Policy and the National Payments System Strategy will ensure that progress on the digitisation front will continue. However, concerted efforts are required to tackle the various supply and demand constraints leading to the high level of the digital divide in the country, to ensure inclusive national economic growth.

Essentially, the pandemic has fast-tracked what was already inevitable, i.e. digitisation of banking. The coronavirus pandemic forced the banks to adapt to a digital-only mode of service provision. Due to this, a flurry of product launches and initiatives such as Roshan Digital Accounts (RDA), remote on boarding of customers, digital KYC, Asaan Digital Account, Asaan Mobile Account, etc., are some of the significant outcomes of the pandemic. In a post-pandemic world, the success of banking



In a country like Pakistan, inclusive economic growth can come from financial inclusion, for which digital financial services and e-commerce are instrumental ingredients. Digital financial inclusion increases women's financial autonomy, eases women's participation in the labour force, improves the performance of their businesses, and brings access to finance for scaling up.



truly depends on how good a bank's products and services are when offered digitally. The banks now have to compete with fintech disruptions of the existing monolithic banking models.

A crisis like the pandemic places extraordinary demands on the leadership of an organisation. How did the leadership at the State Bank of Pakistan (SBP) respond to this critical situation, and what were the lessons learned?

In the wake of the recent outbreak of COVID-19, SBP undertook a number of measures to contribute towards meeting the challenges faced by society to remain safe from this pandemic and its potential impact. SBP extended several measures to mitigate the effects of the pandemic. Not only did SBP offer refinance schemes for SMEs to keep their workers on the payroll, but institutions' existing loans were restructured to allow repayment flexibility to borrowers. Moreover, the government's Emergency Cash Programme safety net scheme called Ehsaas Program disbursed cash grants to 12 million poverty-stricken families to alleviate the impact of the coronavirus-related economic shutdown in the country.

Specifically, SBP extended the amended Anti-Money Laundering (AML) and Combating Financial Terrorism (CFT) regulations for banks and microfinance banks and eased regulations surrounding branch-less banking. In order to help mitigate the risk of spreading the coronavirus, which may arise from physical contact through interaction during account opening activities, we asked the banks to use the National Database and Registration Authority (NADRA) Verisys system instead of biometric verification for authentication purposes. This would also mitigate possible risks of identity theft.

State Bank also decided to expand the scope of its refinance facilities. Accordingly, in addition to the new projects, existing projects/businesses were allowed to avail financing under these facilities for undertaking Balancing, Modernization and Replacement (BMR) and/or expansion of their projects/ businesses. Financing was available through banks/development financial institutions (DFIs) with a per-project limit of PKR 5 billion to all sectors across the board except the power sector. Financing under the scheme was provided at a maximum end-user rate of 5% for ten years. This scheme was valid till March 31, 2021. Under the scheme, PKR 435.7 billion was approved for 628 projects. It is important to mention that 51% of the approved financing was of PKR 200 million or below, implying that a significant number of medium level enterprises benefited from the Temporary Economic Refinance Facility (TERF). By the end



To create real change, we need our policies to be more gender-oriented rather than gender-neutral. SBP is now taking a holistic policy view to ensure that the financial sector embeds a gender lens within its practices. Therefore, SBP has launched the Gender Mainstreaming Policy, Banking on Equality, which aims to enable a shift towards women-friendly business practices in the financial sector.



of September 2021, more than PKR 199 billion had been disbursed.

SBP also instructed banks to waive all

charges on fund transfers through online banking channels such as Inter Bank Fund Transfer (IBFT) and SBP's Real Time Gross Settlement System for customers. In terms of the overall use of e-banking channels, we have increased volume and value. The number of registered Mobile Phone Banking users reached 11.3 million in September 2021, a 38% increase from March 2020, when the lockdowns were imposed. The increase in transactions through the internet and mobile banking channels has been quite promising. During the pandemic, these channels have provided an easy and round-the-clock alternative to its customers to fulfil their daily financial and banking needs. It is expected that the increasing trend will continue in the upcoming quarters due to the steps taken by SBP to promote digital banking during these difficult times.

Only around 33% of women in Pakistan have bank accounts, which is among the lowest in the world. How do you feel the recently introduced Banking of Equality policy by the State Bank will help reduce the gender gap in financial inclusion?

SBP recognises the importance of women empowerment and believes that female economic empowerment cannot be realised without improving financial inclusion and addressing the gender gap within it. Cognizant of this issue, gender has remained a cross-cutting

theme in SBP's National Financial Inclusion Strategy (NIFS) 2015, where a headline target was set to improve adult female account ownership to 25% by 2020.

I am happy to share that banks were able to reach that target before the deadline, and account ownership increased to 27% by 2018. Under the NFIS 2023, the government and central bank are committed to improving usage in women's accounts, with a new headline target of 20 million active accounts owned by adult women by 2023.

Despite the progress, we still see gender imbalances in the financial sector across the board. In particular, when developing countries make progress on financial inclusion, it is highly likely that the gap between men and women's financial inclusion may further widen. Hence, it is clear that policymakers need to carefully consider Pakistan's gender gap in financial inclusion. SBP believes that gender-neutral policies assumed to equally affect both sexes may not be effective against inherent gender inequality in the country's social landscape, which continues to create obstacles in women's financial inclusion.

There are several demand and supply-side factors, which play a role. Firstly, women do not have enough information about financial products & services, the documentation requirements, and the terms and conditions of the loans offered by formal institutions. Social norms and mobility issues also create obstacles for women to access and use formal financial services. On the other hand, banks do not see women as a potential market, due to which they have not played an optimum role to encourage women to use formal financial services. One of the examples is SBP's Refinance and Credit Guarantee Scheme for women entrepreneurs, under which banks couldn't get the scale despite various efforts.

To create real change, we need our policies to be more gender-oriented rather than gender-neutral. SBP is now taking a holistic policy view to ensure that the financial sector embeds a gender lens within its practices. Therefore, SBP has launched the Gender Mainstreaming Policy, titled Banking on Equality, named in Urdu as *Barabari par Bankari*, which aims to enable a shift towards women-friendly business practices in the financial sector. The policy is currently in the implementation phase and banks are working hard to achieve the following headline targets:

- a. 20 million women owned active accounts by 2023
- b. 20% of the workforce in the banks to be women by 2024
- c. 10% of branchless banking agents to be

women by 2024

d. 75% of bank access points to have trained women champions in place by 2024.

Moreover, all banks should have a dedicated women's financial services department by 2022. Furthermore, all banks must also give gender sensitivity trainings to their staff to eliminate implicit gender biases and improve their understanding of the requirements of women customers. A Policy Forum on Gender is being established at SBP, which will serve as the fulcrum for introducing more policies and initiatives to improve the gender gap in financial inclusion.

Women entrepreneurs make up a large part of the informal economy. How do you think fintech adoption and growth, particularly in Pakistan, will pave the way for a more inclusive society?

Success in women's economic empowerment and entrepreneurship will not be attainable without government policies and initiatives that facilitate using technology for their financial needs and business graduation. In a country like Pakistan, inclusive economic growth can come from financial inclusion, for which digital financial services and e-commerce are instrumental ingredients. Digital financial inclusion increases women's financial autonomy, eases women's participation in the labour force, improves the performance of their businesses, and brings access to finance for scaling up. Hence, it is imperative that rural women entrepreneurs are financially included and linked with formal financial services and markets to make their enterprises successful, sustainable, and contribute to the formal economy. My ultimate goal is to see the financial markets of Pakistan become inclusive so that even small entrepreneurs in Pakistan, such as women selling fruit relishes in interior provinces, can benefit from them.

Women are important agents of dairy, livestock, and several other agricultural supply chains. However, most current value chain developments or supply chain financing arrangements fail to integrate gender analysis. With more and more B2B digitisation, there is considerable potential to financially include these women, which will help to improve the transparency of the flow of funds, enhance ownership of income by women through digital wallets, and protect risks of theft and fraudulent currencies which is a challenge faced by the corporate sector.

Therefore, SBP recently launched RAAST, which is Pakistan's instant payment system to enable end-to-end digital payments among individuals, businesses and the government.

Faster payment rails are critical building blocks for the fintech ecosystem. Raast is built on ISO 20022 standard that is the state-of-the-art standard in the world and offers a number of features to support the growing fintech ecosystem. It offers three modes of payments, bulk, P2P and Request to Pay. Using bulk features, companies can transfer funds to their accounts with ease and convenience. Using P2P, individuals can transfer funds to each other, free of cost, using their mobile numbers as aliases. This year, we will be launching Person to Merchant (P2M) payments. This will enable merchants and small businesses to receive instant payments from their customers through different payment modes such as Request to Pay (RTP) and QR payments functionality. We expect Raast payments to revolutionise the digital payments industry.

SBP has also launched the Asaan Digital Account initiative, under which besides men, women, especially home-makers or home-based business owners, can digitally open an account without proof of income. Moreover, women who don't have access to a smart phone or internet facility can open Asaan Mobile Account through dialing *2262# from a basic feature phone. These initiatives will help us in achieving the vision of a digital Pakistan, through which the rich and poor can access all opportunities equally.

The opportunity for fostering growth in digital financial inclusion was clearly highlighted during Covid, which stressed the need for more advancements that improve access, usage, and quality of digital financial services for the ordinary person. I firmly believe that digital financial services have huge opportunities in terms of contribution to economy, reducing government leakages and generating employment.

The SME Asaan Finance scheme is being lauded by entrepreneurs as a groundbreaking initiative by the State Bank to facilitate SMEs to acquire loans without collateral. Can you share more details about this new initiative and what difference you think it will make?

Access to finance can play an important role in the development of the Small and Medium Enterprises (SMEs) sector. In order to overcome inherent structural deficiencies in SMEs lending like the asymmetry of information, high loan losses, lack of collateral, high delivery costs, etc., SBP is offering an SME Asaan Finance (SAAF) scheme to fulfil the financing requirements of SMEs.

Under the scheme, SBP is providing

refinance for three years to eight selected banks. After three years, refinance will be prepaid by banks in ten equal yearly instalments. Selected banks are getting refinance from SBP at 1% per annum and extending financing to SMEs at the end-user rate of up to 9% per annum, which is very attractive compared to informal finance costs. Under SAAF, all SMEs that are new borrowers of a bank will be eligible to avail financing of up to PKR 10 million. As of March 4, 2022, disbursement of PKR 1.5 billion has been made to 291 borrowers.

Under SAAF, collateral-free (clean) financing is available to SMEs for long-term fixed capital investment and working capital finance requirements. Shariah-compliant Islamic modes of finance are also available to meet the financing needs of faith sensitive borrowers. This scheme will help support SMEs pick up after the slump during the pandemic. Hence it is critical to support future economic growth.

Recently, the State Bank has issued Electronic Money Institution (EMI) regulations. Can you help us understand the significance of this for both urban and rural users, students, and entrepreneurs?

To enable fintech development, SBP has adopted an open-door policy for start-ups and innovators by facilitating and encouraging dialogue and discussions. Previously, to facilitate non-banks, SBP issued the regulations for Electronic Money Institutions (EMI). Numerous EMIs are venturing into the Pakistani market to offer innovative, user-friendly, cost-effective, low-value digital payment prepaid instruments like wallets, prepaid cards, and contactless payment instruments, including wearables.

SBP has fast-tracked the licensing process of EMIs, and currently, nine companies are in different phases of operations. Two of them are already live while rest are either piloting or preparing to pilot their products/services.

I am very hopeful that with the launch of commercial EMI operations, there will be a lot of opportunities for all segments of the user-bases including women. People living in rural areas and entrepreneurs can benefit from these services as the key value proposition of an EMI is low-cost, completely digital and innovative products and services compared to traditional bank accounts. For students, the EMIs offer new-age financial and payment experiences catering to the demands of a fast-moving society without the need for physical branch visits and paperwork. Moreover, we view EMI Regulations as essential for advancing women's financial inclusion as we have seen that women are more receptive to using digital avenues due to their limited mobility. Therefore, the Banking



Think out-of-the box and do not limit your ideas and aspirations to a narrow set of business models. The post-pandemic world has brought a lot of opportunities for innovators to develop unconventional business models.



on Equality Policy is also applicable to commercially licensed EMIs.

What has been the most defining moment of your career?

There have been many defining moments, but if you ask me to choose, it would be my decision to move from a foreign bank to Habib Bank Limited. When I moved, it was government-owned and quite a difficult place to work in a variety of ways – in fact, on day two, I was ready to leave. I spent 16 years there and was fortunate to help in making it Pakistan's largest bank with professional standards. If I had not

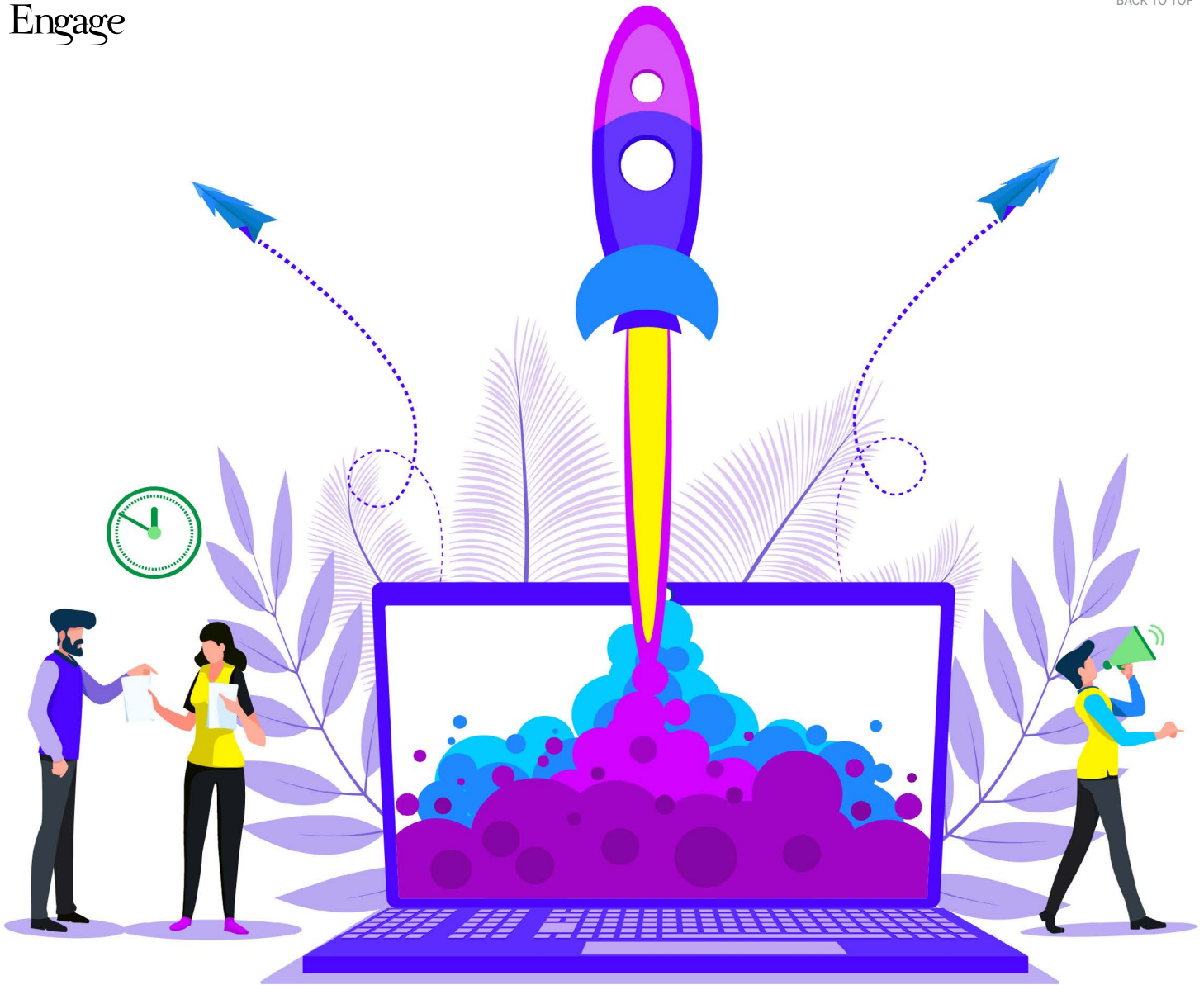
made this move, my career might have been dull and low key.

What would you advise our students – both male and female – looking to innovate in finance and banking in Pakistan?

My advice would be to think out-of-the-box and not to limit your ideas and aspirations to a narrow set of business models. The post-pandemic world has brought a lot of opportunities for innovators to develop unconventional business models. The cost of doing business has gone down with the availability of venture capital, cloud services and relaxations in regulatory and licensing regimes. I am excited to share that we are currently working on an open banking framework that would allow innovators to use banking APIs to develop their products and services. So, as I said earlier, the only limit is your imagination and your capacity to persevere.

And finally – what's on your reading list these days?

Whenever I find time, I read to update myself on the latest developments in digital banking, gender, and development finance to stay abreast of rapid changes. However, I enjoy reading fiction to relax, as there is nothing quite like vanishing into a good novel.



The Digital Economy: what's happening in Pakistan?



M. Shehryar Shahid
Associate Professor
muhammad.shehryar@lums.edu.pk



Ussama Yaqub
Assistant Professor
ussama.yaqub@lums.edu.pk

Shehryar Shahid and **Ussama Yaqub** give us an update on the fast-paced growth of the rising & innovative tech industry in Pakistan.

In the technological landscape of Pakistan, this remarkable surge in the interest of international investors, ranging from Asia, the Middle East and even Silicon Valley is a direct result of improvements in the overall technological ecosystem of the country over the last few years coupled with the improved security situation, political stability, rapid mobile connectivity and certain other regulatory changes.

Digital economy has become the new norm in recent years. Its rapid development is considered one of the most prominent markers of any country's economic growth, international competitiveness, and national security. In 2021, the global tech industry was valued at approximately USD 5 trillion (Statista, 2021), which is enough to emphasise the breakneck pace of technological expansion and growth.

While it is a global phenomenon, Asia alone contributes around 32% to the rising tech industry (Statista, 2021). With emerging economies like China, India and Indonesia, Pakistan has gained particular value in the digital era. "Pakistan has huge potential and we are open for business. My government is fully committed to creating opportunities", tweeted Mr. Imran Khan, the Prime Minister of Pakistan, on an auspicious occasion when a Pakistan-based technology startup, Airlift, recently raised a Series B investment of US\$85 million, the biggest ever in the history of Pakistan.

The Pakistani technology and startup industry have been continuously raising the bar, both in terms of the number of startups attracting foreign investment and the magnitude of investment raised. Since 2015, the Pakistani technology startups have raised a whopping close to US\$450 million in investment, with about US\$240 million raised in 2021 alone, an impressive if not downright historical feat. In the technological landscape of Pakistan, this remarkable surge in the interest of international investors, ranging from Asia, the Middle East and even Silicon Valley is a direct result of improvements in the overall technological ecosystem of the country over the last few years coupled with the improved security situation, political stability, rapid mobile connectivity and certain other regulatory changes. In particular, the

new regulations issued by the State Bank of Pakistan in February 2020 enabled local startups to raise foreign capital by allowing them to establish holding companies. This has resulted in an influx of international investors right away and has fueled the country's ongoing digital transformation.

Many new opportunity verticals have opened for technological interventions in Pakistan over the last two to three years. However, certain hot spaces hold a strong promise and visibly stand out in this regard. Most of the interventions in those spaces are primarily the localised versions of tried and tested business models from across the globe. Leading from the front in this digital transformation is Pakistan's e-commerce sector, whereby we witness a booming number of technology startups, in both B2B and B2C segments, emerging to serve the changing needs and behaviour of the consumer. B2B e-commerce, in particular, is a relatively new but remarkably expanding space in Pakistan, with digital platforms, such as Bazaar Technologies, Tajir and Retailo Technologies, attempting to disrupt the supply chains of the micro-retail sector. Talking of the B2C segment, q-commerce (quick commerce) is the future of online retail operating on the exciting edge of innovation in delivery. The Pakistani technology startups seem prepared and sufficiently equipped to ride on this technological wave within the e-commerce space. Many traditional e-commerce startups, including Airlift, Bykea, foodpanda, 24seven.pk and Cheetay to name a few, are now transforming to promise an ultra-fast 60 minutes (quick) delivery time to customers owing to innovations in their delivery models, and of course, the capital investment flowing into this sector lately.

Second to e-commerce, fintech (financial technology) is another growing

vertical of technological transformation in Pakistan. Beginning with the mobile wallet applications developed by large companies, such as Jazz Cash and Easy Paisa, this wave of financial digitisation has taken roots in the form of numerous local startups of mobile wallets that include but are not limited to Sada Pay, Naya Pay and Finja. Interestingly, startups in the fintech space are not only limited to mobile wallets anymore, but have rather expanded along other verticals too where we recently see fintech solutions, e.g. Abhi, providing a digital platform for employees to withdraw their earned wages as and when needed, as well as startups like Digikhata, that provides bookkeeping solutions for small shopkeepers. In short, fintech is an emerging and exciting space in Pakistan with a lot of potential that remains untapped.

The third noteworthy space that happens to attract a good deal of attention and investment from foreign and local investors in Pakistan is that of logistics. Recently, several startups have set out to deploy technology to bring efficiency, scale, and innovation to Pakistan's fragmented and inefficient logistics services markets. Most recently, BridgeLinX, a mobile and web-based solution for shippers and carriers to connect with each other, and book and track their loads, has raised the largest ever seed capital investment (US\$10 million) by a Pakistani startup. Likewise, another similar startup, Truck It In, providing users with the ultimate experience of booking and tracking their shipments through a digital platform, has just bagged a whopping US\$4.5 million as the largest pre-seed funding round in the entire MENA region. Apart from the aforementioned hot spaces, there are many other relatively smaller verticals of digital transformation that are beginning to show their marks on the technological landscape of Pakistan. Edtech (educational



technology) and telemedicine, in particular, are the next emerging spaces, with some local startups having already raised small pre-seed or seed investment rounds.

Despite many startups seizing digital opportunities, there remain some serious challenges in ensuring the creation of new ventures and the sustainability and scalability of the existing ones.

First and foremost, the provision of high speed and reliable internet services in small and suburban areas is extremely crucial for users' digital transformation. It is not viable for the private sector to provide internet and telecom services for the smaller towns and harder-to-reach regions where users are sparsely populated. Thus, the state has a clear role in ensuring access to reasonable quality and affordable broadband for all citizens, a prerequisite to access digital products and services, including digital platforms.

Similarly, a reliable and widely used digital payment platform is also essential for facilitating the digital transformation of organisations in Pakistan. According to the Payment Systems and Fund Transfer Act of 2007, this platform is critical to the development of e-commerce in the country. The State Bank of Pakistan has continuously strived to improve its regulatory frame-

Pakistan has embraced its potential as a digital economy and has rapidly adapted to technology and startup formation despite all the challenges. A little late in the game as compared to other regional economies, Pakistan's technology sector seems to have arrived in a big way.

works to facilitate electronic payments. Some of the significant developments in this regard are RAAST and Electronic Money Institution (EMI). RAAST is an instant payment system introduced in 2016 and dubbed a one-stop fix to make digital payments faster and convenient.

Similarly, in May 2021, the central bank principally approved Electronic Money Institution (EMI) with the collaboration of three business groups of Pakistan and China. The goal of EMI is to digitise the Pakistani economy with innovations such as QR payments and e-wallets which recently helped digitise the Chinese economy. These developments will go a long way in enabling the financial inclusion of millions of unbanked individuals in Pakistan and encouraging consumers to utilise digital payment systems for products and services.

Another pressing regulatory and policy issue when it comes to technolo-

gy entrepreneurship is that of taxation. In particular, the sales tax regime, both federal and provincial, remains a major cost of doing business by users of digital platforms. The varying sales tax rate on services across provinces and the onerous tax collection and rebate system are significant impediments. Hence simplification and harmonisation of the current sales tax on online services should be adopted. Furthermore, sales tax on e-commerce should be reduced to encourage online transactions by providing incentives to consumers.

It is clear that Pakistan has embraced its potential as a digital economy and has rapidly adapted to technology and startup formation despite all the challenges. A little late in the game as compared to other regional economies, Pakistan's technology sector, one may argue, seems to have arrived in a big way.

Industry Outlook

An **Interview** with

Aezaz Hussain

Chairman,
Systems Limited

“Leading from the front in this digital transformation is Pakistan’s e-commerce sector, whereby we witness a booming number of technology startups, in both B2B and B2C segments, emerging to serve the changing needs and behaviour of the consumer.”

Systems Limited is the premier technology services and solutions company in Pakistan. Included in Forbes Asia's Best Under a Billion list for the second year in a row and winner of the 2021 Poll of Asia's Outstanding Companies by Asia Money, how did it all begin in 1977?

It is essential to understand the backdrop to the IT sector at that time. The import of computer hardware was banned in the late sixties, and a very rigorous regulatory framework was put in place for allowing the import of any computer. This process involved four ministries of the government. By 1977, barring banks, no private sector organisation had an in-house computing facility. A selected few government organisations had been given the authorisation to import computer systems after a multi-year approval process for each system. Having worked with IBM from 1970 to 1975, I was personally involved in the sale of a dozen computer systems. It is important to note that historically all hardware vendors (IBM, NCR, HP, etc.) bundled software with the hardware and didn't charge for software development. The software services business by these giants became independent after the mid-80s. So independent software service providers had to compete against "bundled" services. So universally, it was a tough time to start a software services company, especially in Pakistan, but then it was also an opportunity.

Syed Babar Ali, the leader of Packages Group, was keen to digitise the operations of the Group to effectively manage the accelerated growth of its ventures. He had placed an order with IBM but couldn't get permission to import it. In 1977, WAPDA got permission to import a larger computer system, and their existing one was available on a rental basis from IBM in Lahore. IBM offered it to Syed Babar Ali. Being a visionary, he approached me and asked if I would collaborate to set up an independent software services company that would offer services to the market. That is the genesis of Systems Limited. It is pertinent to state that a computer at that time wasn't what it is today. This computer (an IBM System 360), including all its components, weighed 2.7 tons.

After that, Systems reinvented itself every 4-5 years to keep up with technical advances in this sector. We did some major disruptive projects in Pakistan, including digitising the government accounting function at the

district level, the budgeting exercise, land records, the Central Depository Company, etc. However, real growth started in 1997 when we plunged into the international market. That is when our growth and profitability accelerated.

The next milestone was in 2015 when we did a public listing of the company on the Pakistan Stock Exchange. We were already a profitable and cash positive entity. We didn't need to raise more capital, but the major objective of the listing was to get an independent valuation of our company and its share price so that when employees got stock options, they could see the result of their hard work in terms of the growing



We instituted a strong employee ownership culture that persists and has been a key factor for the growth and success of the company.



valuation. The exercise of doing the listing was very energising. The response from the market was excellent, and in short five years Systems climbed into the top twenty public companies on the stock exchange, and today it is the 15th most valuable company on the stock market. The impact of this on our employee ownership has been dramatic.

Tell us how you got into this field? What inspired you?

My grandfather and his ancestors were farmers, but as the land holdings dwindled with successive generations, my fathers' generation took on careers in the army and

government service. These were not very attractive options for my generation, so we branched out into various professions. My childhood was spent in a dozen towns and cities as my father moved in his career, and I attended six schools. I was inclined towards engineering, but then romance with mathematics took me to England in 1968 to do a master's in applied mathematics.

While at university, I accidentally came across a two-hour walk-in course on introduction to computer programming offered to all graduate students. This started a new romance, and I taught myself enough programming to do my thesis on a computer simulation model of a manufacturing facility. So, a mixture of operations research, statistical analysis, queuing theory and my new found programming skills got me a successful thesis and a master's degree.

I came back to Pakistan and applied and got offers from the standard organisations like the State Bank (research), PIA (operations), PICIC, etc., but the programming bug made me seek something in the IT area. I applied to IBM in Karachi and, after many tests/interviews, etc., was selected as a trainee. Thus in 1971, I started my career in IT. IBM trained me extensively, and I became a systems engineer. Just over two years later, IBM, in its wisdom, promoted me to a sales job and sent me to Islamabad to set up a branch office. Another two years later, I realised that I was now a very accomplished box mover and not a problem solver anymore.

By 1975, I had to relocate to Lahore for personal reasons, and since IBM didn't have a branch office there, I found a job in National Fertilizer Corporation (NFC) as head of Planning and IT. Under the chairmanship of Syed Babar Ali, NFC had been given the charter of expanding the fertiliser production capacity in Pakistan and over the next two years invested half a billion dollars in setting up large fertiliser production plants in Multan, Mirpur Mathelo, Haripur, etc. This was a remarkable experience that used my applied mathematics skills in planning. A professionally satisfying achievement was to create a nationwide fertiliser distribution plan which included optimally locating bulk storages in key demand areas and a logistics system to connect these to the production facilities. In late 1977, Syed Babar Ali suggested that I should set up an independent software house – the first in Pakistan.

So, what started as an accidental introduction to computer programming in 1969



over the next fifty plus years became a career in IT and resulted in a global group of IT companies – Systems Limited in Pakistan, Visionet Systems in the US and Europe, and TechVista Systems in the Middle East. Creating and delivering enterprise level software solutions is one of the hardest human endeavours. Yet I see ordinary people doing such a fantastic job at this and delight our clients with their skills and commitment. That is what inspires me. It is profoundly motivating to be in a position of enabling this and witnessing the transformation of a young new professional joining our team and growing to become a world-beater.

From its inception, Systems Limited has been an employee-owned enterprise. Can you tell us more about this?

Systems was conceived as a services company and was therefore all about the human resource it could muster. In 1977

skilled resources were rare and difficult to retain as there was a pull from the whole world. There were no undergraduate courses being offered by any Pakistani university in Computer Science. Just a one-year postgraduate course offered by Islamabad University with a capacity of 20-25 students. We had to pick engineers, MBAs, economists, etc., with an aptitude for programming and train them and once trained to retain them. For the first five-years, almost every employee we hired saw a computer for the first time when they joined us.

Systems would not have survived had this issue not been resolved. So, from day one, I convinced my Board that while we were set up as a Limited Company, we must operate as a partnership, and I will bring in professionals by offering them “partnership” in the form of shares in the company and similarly as we grew, professionals with proven skills and

commitment would also be offered shares. So, from inception, we instituted a strong employee ownership culture that persists and has been a key factor for the growth and success of the company.

For me, the most satisfying part of the journey is that ten years ago, I became Chairman of the Board and handed over the company’s operational management to the second generation of employees who had significant shareholdings and the energy to take the company to the next level. The current CEO of Systems, Asif Peer joined as a developer straight out of college in 1996. Today he is the third-largest shareholder of the company and is leading it to its next level of growth.

You said in one of your interviews that innovation is an engine of economic growth. What is the future of innovation in Pakistan?

I said this in the context of all economic

activity, not just IT. However, innovation must be in the context of our realities and not just imported. Innovation must primarily be focused on successfully applying any technology or methodology in the context of the domestic working conditions. To simply import systems used in other countries and try to apply them in our environment can often be counterproductive. Some innovation in domesticating the technology for its acceptance is essential. This requires deep knowledge not just of technology but also of ground realities and the ability to adopt the change.

How can the government create an enabling environment in Pakistan for the development of the IT industry, and how do you think the tech ecosystems in the country should be boosted to get to the \$10 billion technology exports target stated by the Government in the 2020 Pakistan's IT Industry Report?

The export of IT services has been growing dramatically in the last 3-4 years and will continue to do so. The demand for employment by this industry (both domestically and internationally) boosts the enrollment of students in IT-related degree courses. The ecosystem to support this growth requires the attraction of quality faculty in academic institutions as that is a vital input for enhancing the production of skilled resources. A strong partnership between the industry and academia is essential to overcome this constraint.

Another key factor of the required ecosystems is access to capital to fuel the growth of IT companies. IT services, unlike manufactured products, require a strong presence in foreign markets to win and service large and ongoing engagements. This requires investment in those markets. The Government must rationalise the foreign investment regulatory framework so IT services companies can invest aggressively in their target markets and grow faster. There has been a rising hype about the export of IT services, and it has been the main focus of this vital industry. However, other than the potential of export earnings, this industry has a crucial role in the economic development of Pakistan. Effective use of IT in all industrial enterprises is vital to making these enterprises globally competitive. IT provides critical strength to the provision of services in all sectors, including the important sector of governance at all levels.

A crisis like the Covid pandemic places extraordinary demands on the leadership of an organisation. What do you think are the key things that leaders should keep in mind when responding to such a crisis?

Having completed a very successful year in 2019 with record growth, the global leadership of our company met in Dubai in December 2019 to plan for the next three years and budget for 2020. We came out of the meeting with a very aggressive growth plan and put it into action in January.

In mid-March 2020, we were faced with the Covid-19 crisis. We were compelled to move to work-from-home immediately. The fears were many, and questions included,



Innovation must primarily be focused on successfully applying any technology or methodology in the context of the domestic working conditions.



will we able to work from home, remotely engage with clients and manage productivity, will our clients survive, will the demand for services fall drastically. By September, all fears had been dispelled. Our growth was higher than the aggressive plans we had made for the year, and our people's productivity or their ability to engage with clients had not been affected. We had a phenomenal year, followed by another one in 2021.

I attribute this to our strong employee ownership culture and the quality of the leaders who thought beyond their comfort and put trust in their people to deliver re-

motely. We learned that employee engagement had to be enhanced and done in a new way. The normal supervision by being in the same facility will not work. The trust and faith in your teams had to be ignited differently. The interaction though remote had to be more holistic with an individual and not just a resource.

The leadership must become more empathetic with its resources. It must understand the ecosystems that it is working in and focus on enabling that. It cannot take its fears and other emotional issues for granted. The whole dated attitude of when you come to work; you must only focus on work has to change. The attitude of the people in your organisation is more important than the work at hand.

What changes do you foresee in the business world in terms of work culture because of this global crisis?

I can only comment on knowledge workers. Trust in your employees and introduce an innovative method of monitoring work progress. Create a remote work ecosystem that focuses on work-life balance. Invest in technology and create a distributed and geo agnostic work environment. Take advantage of the cost-effectiveness of remote and part-time work and take this opportunity to attract the female workforce who are hired as remote workers.

Finally, what advice would you give our students considering a career in ICT and tech entrepreneurship?

If you have entrepreneurial ambitions, do it early in life when your energy is high, and your financial and social commitments are low. I was in my late twenties, married and had one child. And believe me, it was a struggle. I wish I had the opportunity to set up a business four years earlier. One was always told to get some experience before starting up on your own. No job can prepare you for what you face when you start your own business - hire people, commit to clients, deliver the service, and meet the monthly payroll. The only value of working experience is that it gives you exposure to managing and being managed by people. For students, my strong advice is to focus as much on the application of the technology as the technology itself. Your knowledge must have a context.

A portrait of Naimin Yang, a woman with dark hair, smiling, wearing a dark pinstriped blazer over a black top. She is standing with her arms crossed.

Graduate Spotlight Naimin Yang,

CEO TCL Pakistan &
Executive MBA 2020 Graduate

Reflects on her Time at SDSB

Please tell us a little bit about yourself.

I joined TCL after graduation. TCL is amongst the top 2 TV brands in the world, and one of the first Chinese companies to initiate globalisation in China. I have been with TCL for 16 years, and became the CEO in 2013.

Why did you choose the LUMS Executive MBA Programme?

After working in Pakistan for so many years, I had come into contact with many senior management professionals from different organisations. I often heard about LUMS and its experienced faculty. In 2018, I decided to improve myself and pursue an Executive MBA degree, LUMS was my first choice. As I looked into the EMBA programme, I gained a deeper understanding of its structure, course design, the case method pedagogy, the globalisation module, and the SDSB faculty. Everything suited me and I eventually joined the 2020 EMBA batch without hesitation.

You joined the LUMS EMBA after 13 years with a multinational company. How was the transition from work to academics, and how did you manage the work-life balance needed for an executive programme?

The LUMS EMBA course does not only require a lot of energy and time for reading and completing assignments, but also has very strict attendance rules. For these reasons, I had to adjust my work-life balance. I had to read books and prepare projects for most of the time after work, and had classes every other weekend. Thus, I had to adjust the frequency and length of my business travels, and also had to sacrifice entertainment and social activities.

How is it to work in a foreign country as a female CEO, a field dominated by men?

Personally, I am used to working in foreign countries. Of course, I have to admit that the challenges are huge. I have to interact with people from different cultures, and live and work in unfamiliar environments. Also, I have to be familiar with laws and regulations and the local industry, not only to gain a deep insight but also to become an actual insider. As a female in the workplace, I feel that we should be aware of gender equality along with demonstrating professional skills in managing and leading a team.

What advice would you give to the next generation of female leaders?

More and more females have now started to take on leadership positions in government and international organisations, which demonstrates the importance of females in the labour force. In terms of advice, I would suggest women to have an independent spirit, continue to enrich yourself through continuous learning and keep your curiosity alive. Focus on the field that you are good at and to be proficient at it. Also, keep an open mind for new things and embrace change.

Describe SDSB in three words.

Open, Strive, Cooperation

What is the one piece of advice you would offer to students considering the EMBA programme at SDSB-LUMS?

I sincerely suggest you to join the EMBA course. During the 2 years of study, you will become more knowledgeable and gain a new perspec-



More and more females have now started to take on leadership positions in government and international organisations.



tive in problem solving. You will gain more by studying the course after several years at work, since you would be able to combine theories with actual experiences.

And finally, what is your favorite memory of LUMS?

- For every morning class, I walked from the parking lot to the front of the SDSB building and passed different flowers on the way. I could smell the fragrance of the four changing seasons throughout the year. What a wonderful walk!
- During group discussions, everyone in the class strives to prove their point of view, they try their best to win the argument, but shake hands in the end!
- The anxiety I had for not finishing my homework, each time I stayed awake until two or three in the morning studying.
- My study tour to Karachi with my classmates was a memorable experience. I can still picture us working in different companies and later on getting together to drink tea outside on the road in the middle of the night.
- In every class, we went from being unfamiliar with our professors to feeling sad when we had to say our goodbyes at the end. I am still in touch with my teachers.

There are too many unforgettable memories in LUMS. These will be the most unforgettable memories of my life.

SDSB Tribute

SDSB Congratulates its Emeriti Professors

Globally the “emeritus professor” title is awarded to retiring academics with a history of university service.

LUMS has awarded Dr. Ehsan ul Haque, Dr. Syed Zahoor Hassan, Dr. Jamshed Hasan Khan and Dr. Anwar Khurshid the title in recognition of their valued contributions to LUMS. These professors have made unbounded efforts in enabling SDSB to achieve and retain the rank of being the country’s top business school. Their teaching has been legendary and the educational leadership they have exhibited over three decades has been outstanding. They are exemplar scholars who continue to shape business education and practice.

– **Dr. Alnoor Bhimani, Honorary Dean SDSB**



The way Dr. Ehsan taught advertisement was inspiring, and it motivated students generally. Such inspiration makes you passionate about your profession, which is one of the distinguishing attributes of LUMS graduates.

– **Affan H. Khan,**

CEO, Telenor LDI Communications Pvt. Ltd.
(MBA 1999)



**Marketing can't be more
engaging than in Dr. Ehsan's class**

– **Naeem Mohsin,**

CFO, Atlas Power Limited
(EMBA 2020)



The engaging and interesting content in Strategy and Marketing taught by Dr. Ehsan was so practical that I have applied almost all the theories in my work. Who said Kotler would ever be forgotten as every marketing class at SDSB-LUMS revived his work most magnificently? It's unbelievable how every class was more engaging than the previous one and how we all looked forward to it every weekend.

– **Zehra Rizvi,**

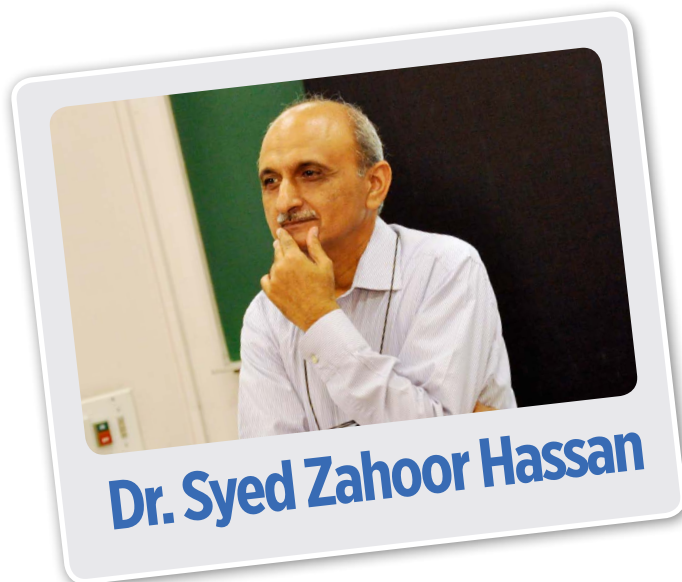
Senior Manager Digital Learning, PTCL
(EMBA 2021)



Many teachers carry the knowledge; only a few know how to transfer it to become lifelong learning. Your style of teaching is meant for case based teaching. I remember how you would bring the best out of each of us, like a maestro leading an orchestra. Thanks to you, I walked away from every class wiser to understand that there is no single correct answer. I owe a lot to you and LUMS, my alma mater.

– **Faraz Siddiqui,**

Global Vice President eCommerce, RB
(MBA 2004)



Congratulations on the award which is so well deserved. The immense learnings I came away with helped me land the best international assignments and deliver respectable and sometimes incredibly excellent results. Thank you for being such a positive influence in my life. You're a phenomenal ustad.

- Samina Rizwan,

Country Head, Code for Pakistan
(EMBA 2007)



Dr. Zahoor Hassan, you have been the cornerstone of SDSB and LUMS along with the other Professor Emeriti. You have given so much to the institution in terms of strategy formulation, direction, administration and fostering a culture of innovation, research, collaboration and enabling others to reach their potential. Above all, I feel your greatest contribution has been inspiring young faculty to strive for the betterment of the institution and achieve excellence in academia and research. You have inspired me, and I am sure many other students, to achieve excellence in our professional lives, staying humble and actively working towards solving the challenges of our country in whatever capacity we can. I want to thank you for your services to the institution and for being the person you are. I wish you luck in your new phase of life and would love to see your active involvement as Professor Emeritus so the institution never gets deprived of your experience and contagious positive energy.

-Suleman Dawood Ahmad,

Student at UT Dallas & former Research Associate at SDSB
(BSc 2017)



You have been one of the most influential teachers for me. Following you, I also became a pioneering MBA lecturer of e-business in Sri Lanka. Over the years, I have interacted with you when you were the Dean of SDSB and later the Vice Chancellor of LUMS and the focal person of AMDISA in South Asia. I also had the pleasure of hosting you in Colombo, Sri Lanka. I am delighted that I am still in contact with you and am lucky to get your input on academic development work for Sri Lankan academics. I take this opportunity to congratulate you on your new role as Professor Emeritus and look forward to continuous collaboration.

- Chaminda Hettiarachchi,

CEO, Dil Consultancy Pvt. Ltd., Colombo, Sri Lanka
(MBA 2001)



Dr. Zahoor's learnings from class continue to stay with me each time I make a decision. His ability to open different thinking processes and perspectives has made me a better professional and a better person. Dr. Zahoor lit a fire in me to do something more for the agriculture landscape of Pakistan, which I am currently pursuing. Next on my agenda is to eat from a Benihana restaurant somewhere in the world. All MBA students of Dr. Zahoor would agree on that. I wish him the best of luck for the future, and may he continue to inspire more students in the future. LUMS certainly owes a lot to him.

-Fahd Iqtidar Mir,

National Sales Manager, ICI Pakistan Ltd.
(MBA 2017)



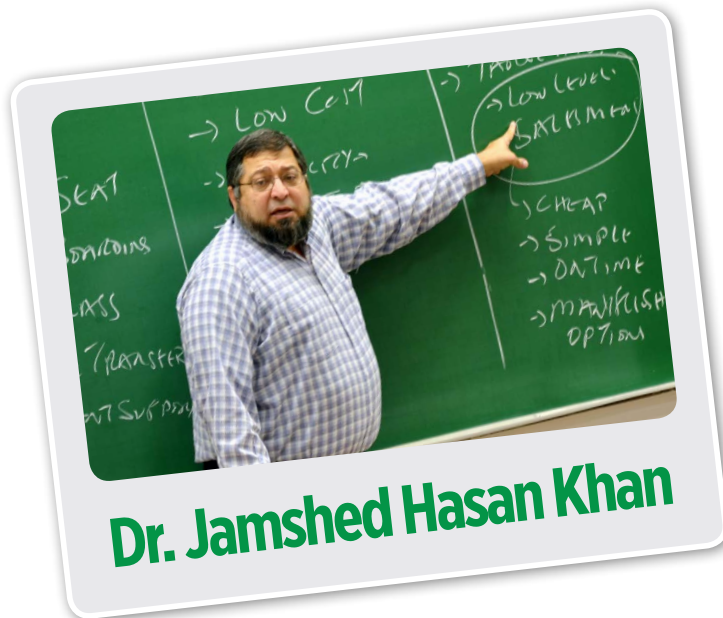
If there is one thing every MBA student, I know remembers from the orientation week, it is your larger than life presence! You are the wake-up call everyone gets, realising that getting into LUMS was not the goal but the beginning. Thank you for all that you have done for many like me. I owe a lot to that “wake up call,” which helped me become a better professional at work and a better person at home.

- Faraz Siddiqui,
Global Vice President eCommerce,
Reckitt Benckiser
(MBA 2004)



They say LUMS experience is not complete if you haven't been taught by JAM. Dr. Jamshed's aura is such that you can't forget him ever. We had such a thrilling experience in his classes and projects; what an energy you have, sir. May Allah bless you, and please keep smiling.

- Junaid Lashari,
Business Development Leader,
Middle East Growth – Nokia
(MBA 2018)



**Thank you for moulding us into
the people we are today.**

- Rimsha Faheem,
HR Consultant, Karandaaz Pakistan
(MBA 2021)



Dr. Jamshed made us think deeper by asking questions which enabled students to be clearer in their thought processes and arguments. This has helped me throughout my career. His focus on punctuality is also something that goes a long way with students and prepares them for the future.

- Affan H. Khan,
CEO, Telenor LDI Communications Pvt. Ltd.
(MBA 1999)



You were not just a teacher in the MBA programme.
You personified its rigour, excellence, and value.

- Chaminda Hettiarachchi,
CEO, Dil Consultancy Pvt. Ltd., Colombo, Sri Lanka
(MBA 2001)



I had taken the course Organisational Behaviour with you in one of my earlier semesters back in 2018-2019, and it was simply a pleasure. I have realised that remarkable people are often remembered for their positive attitude and kindness. You are a remarkable professor who has left a mark on me and the rest of your students with your humility, understanding and kindness. Thank you so much!

-Marium Khatri,

Expo 2020 DP World Education Ambassador
(BSc 2021)



You are my impression and interaction of LUMS. During my MBA days and even later, you remained a reliable and accessible mentor. Thanks a lot for helping me and guiding me in this life-changing journey I started two decades ago at LUMS. I am sure you will provide valuable services and global knowledge to many more young professionals in the years to come.

- Chaminda Hettiarachchi,

CEO, Dil Consultancy PVT. LTD.,
Colombo, Sri Lanka (MBA 2001)



Your persona was out worldly. Your calm, composure and smile made every case how so ever long worth reading. You were the first person with whom I worked on a non-finance case, and I loved doing it. Thank you for starting my MBA journey.

- Muhammad Mobeen Ajmal,

Lecturer UMT (MBA 2012)



Dr. Anwar Khurshid



I learned a lot from you—practical learning that I applied to my job and personal life. The experience in your classes was exhilarating. Your soft nature and skill in delivering complex messages are matchless. Lucky to be your student.

-Junaid Lashari,

Business Development Leader,
Middle East Growth – Nokia
(MBA 2018)

This article is based on the paper *Using machine learning for evaluating global expansion location decisions: An analysis of Chinese manufacturing sector*, published in *Technological Forecasting and Social Change* (2021).

INTRODUCTION

The Fourth Industrial Revolution has drastically transformed corporate decision making through innovations like machine learning. The fourth industrial revolution advocates the idea of “Cyber-Physical Systems” (CPS), which integrates computation and networking technologies with physical processes. Machine learning has significantly impacted supply chain management and decision-making related to selection of locations for distribution and expansion of business.

Conventionally, the role of machine learning in corporate decision-making and business expansion was minimal. Such decisions require predictions, forecasting, graphical representation and simulations, which can now be efficiently done using machine learning. Machine learning combines artificial intelligence and statistical tools of data analysis to generate algorithms for quick decision making. These algorithms are usually more robust, optimised, and free of biases, which makes them an optimum choice for analysing large volumes of data, particularly in the context of business expansion and financial decisions. This study by Da Huo (Central University of Finance and Economics, China) and Hassan Rauf Chaudhry (LUMS) investigates how Chinese corporations make location decisions in global expansion using machine learning frameworks and technologies.

RESEARCH SUMMARY

The authors analyse how machine learning has affected conventional decision-making tools, such as financial leverage and R&D wage level. They utilise machine learning frameworks including the Mode Network, 3-D Vision of Mode Network, Hierarchical Cluster Analysis Heat Map, and Neural Networks by incorporating internet intensity to assess the effects of financial leverage on global expansion decisions. These decisions also include a number of other considerations, including managing different cultures, operating in different regions, and services to different types of customers. The authors posit that using machine learning frameworks can help understand how to better

manage complex decision-making.

The results demonstrate the continued relevance of classical decision-making tools such as financial leverage and wage level for expansion decisions by Chinese companies. Moreover, the results reveal that financial leverage has a negative effect on the location decision of companies globally. In the early stages of global expansion, companies may be constrained by financial resources, however, higher levels of financial leverage can actually encourage global expansion.

Furthermore, the interaction between financial leverage and wage level also has a negative relationship with global expansion. In other words, companies based in emerging markets can take advantage of lower wage levels even while expanding abroad. The results of this study also indicate that financial leverage and firm size are positively linked with global expansion. It is evident that larger firms having abundant resources have an advantage when it comes to expansion. In conclusion, the results broadly suggest that the conventional framework of expansion decision-making based on financial leverage, is still relevant.

PRACTICAL IMPLICATIONS

Huo and Chaudhry propose a number of practical steps to improve rates of global expansion for companies in emerging economies. For starters, governments can offer institutional support to companies involved in global expansion, especially during the initial stages. Second, in order to have a level playing field for smaller companies, supportive policies to enhance financial leverage need to be institutionalised. The authors also maintain that higher financial leverage can offset the potential benefits of global expansion, and therefore must be managed within a reasonable range to have some degree of balance.

● REFERENCE

Huo, D. & Chaudhry, H.R. (2021). evaluating global expansion location decisions: An analysis of Chinese manufacturing sector. *Technological Forecasting and Social Change*, 163, 120436. <https://doi.org/10.1016/j.techfore.2020.120436>



Hassan Rauf Chaudhry

Assistant Professor
hassan.rauf@lums.edu.pk

An Interview with

Shiza Shahzad

Senior Officer
Accreditation & Quality Enhancement

Tell us a bit about yourself and your family.

I was born in the UK and lived there for five years when my parents decided to move back to Lahore. Since then, Lahore has been my home. My father is a doctor who specialises in histopathology, and my mother is a homemaker and a strict disciplinarian who keeps us all in check. We're a very close-knit family, so my childhood memories are filled with family get-togethers, birthday celebrations, anniversary dinners, movie nights, picnics and barbecues, trips to the north, sleepovers with cousins and grandparents, etc. My early schooling has been from a missionary school called Sacred Heart, and later I joined Lahore Grammar School, where I completed my O and A levels. I'm a graduate of LUMS, where I majored in Political Science and then pursued my master's from the Univer-

sity of Warwick. After graduating, I started working in the education sector and joined SDSB in 2018. I recently got married, so currently enjoying navigating through this new chapter. My husband is also a graduate of LUMS and is presently involved in multiple entrepreneurial/startup ventures.

How would you describe your job?

My job entails supporting national and international accreditations of Suleman Dawood School of Business to validate and further enhance the quality of our programmes. My primary role is to collect data and feedback from various stakeholders and analyse and effectively present our School's story, successes, opportunities, risks, achievements, and impact backed with evidence to external bodies. Accreditation and quality enhancement work is primarily two-fold. We firstly facilitate and support in developing multiple quality enhancing mechanisms pertaining to our programmes, students, and faculty that align with the School's mission and vision

and are driven by our strategic orientation. The second part is reporting, wherein we report these processes and outcomes to various external national and international bodies for accreditation and ranking purposes.

I'm also responsible for staying abreast of national and international accreditation standards conveyed to the Schools' faculty, staff, and administrators. I ensure the effective coordination and implementation of various recurring quality assurance mechanisms at SDSB developed over the years, including the Assurance of Learning cycle that consists of course-embedded assessments in different courses, ETS Major Field Tests, graduating student exit surveys, and employer and internship surveys. Thus, there is a lot of data/feedback collection and data analysis that we then report to different stakeholders to maintain a culture of continuous improvement and innovation within the School. So, I'd say it's a very wholesome job opportunity whereby I get to manage various operational tasks that provide a specific structure to my routine. I also analyse data and develop new assignments/projects that make the job intellectually stimulating as well.

What do you like most about working in accreditation?

There's a fair amount of research and analysis associated with this department, so it's really an eye opening and fascinating experience when I read articles about different innovative practices, initiatives and ideas practiced by other international business schools. It keeps me motivated to think out of the box and contribute as much as I can for the advancement of our School. As part of my job, I also have to reach out to every department at LUMS and SDSB for data and information collection/verification purposes which I genuinely enjoy. It makes me feel connected to the LUMS community. The general environment at both the department and school level is comfortable to work in where I feel respected, safe and autonomous.

What inspires you to work towards your goal and accomplishments?

I try to draw inspiration from within, where I constantly remind myself that I need to give my best in whatever I do, be it work or relationships. I owe it to my Creator to fully live the life that has been



“
I try to draw
inspiration from
within,
where I constantly
remind myself that I
need to give my best
in whatever I do, be
it work or
relationships.”

granted to me. But I also feel that inspiration can come from the simplest things if one pauses and reflects. I'm lucky to be surrounded by hardworking and motivated people, both at home and at work, from whom I draw inspiration and energy.

What would people be surprised to learn about you?

I have a passion for the culinary arts. I enjoy playing and experimenting with different ingredients and trying out different cuisines. I am also currently pursuing a diploma in psychotherapy and eventually plan to practice therapy. I love exploring new places, their culture, history and food, which is why I've made quite a few solo trips to different countries. Recently, Covid has restricted travel plans, but I aim to travel to a new place once a year.

When you are not at work, what do you do for fun?

I make my favourite comfort meal and binge-watch a season or movies on Netflix. My husband and I also love the outdoors, so we often go for walks to different parks in Lahore, especially with the perfect weather in the winters, or we relax and hang out with family and friends at home with some great music, a delicious meal and lots of laughs.

From your experience in the global pandemic, what would you most like to share with the LUMS community?

The pandemic has brought a lot of uncertainty, anxiety, stress and grief in some form for all of us. It's been hard to stay positive and motivated. I'm sure we all went through many lows but hopefully, some highs as well. I think what kept me going was the thought that nothing really lasts forever, and this too shall pass. Giving space to yourself to acknowledge your emotional and mental state, being kind and compassionate to yourself and others around you is essential during these difficult times. Happiness and joy lie in the smallest of things and moments, so seek and celebrate both the small and big victories in your life.

Describe SDSB in three words.

Lively, Safe and Inspiring.

Master of Science Technology Management and Entrepreneurship



SARAH PERVEZ
PROGRAMME
DIRECTOR

Technology and innovations are developing at an increasing rate as new products and services are rapidly improving our lives in significant ways. Tech innovation managers and entrepreneurs who know how to lead technological changes in entrepreneurial practices are high in demand to capitalise on process and product development opportunities. This unique and integrated programme by SDSB provides you with an opportunity to lead your future as an entrepreneur and innovator. We offer an exciting classroom environment for you to grasp how to identify big problems and view them differently to create unique and creative solutions. World-class faculty, an Executive in Residence, industry mentors, an applied approach and access to incubators, technology labs, engineering and design resources prepare you to focus on entrepreneurial and innovation processes by which inventions and creative ideas are brought to market to create meaningful impact.

The MS Technology Management & Entrepreneurship programme aims to immerse and nurture a generation of technically grounded leaders in a world of innovation and entrepreneurship opportunities through one year of rigorous coursework. Students will benefit from small class sizes and dedicated faculty advisors that provide one-on-one guidance. In terms of aptitudes and skills, they will develop a combination of technical and business expertise relevant to large incumbent firms and start-up ventures alike. For the capstone, they will be doing a field placement that will enable them to assess emerging technologies and be exposed to vibrant entrepreneurial and business ecosystems.

This programme is for individuals that share a strong drive and passion for both technology and entrepreneurship and aspire to impact the world.

BADAR KHUSHNOOD
EXECUTIVE IN RESIDENCE
CO-FOUNDER
FISHRY.COM
CHAIRMAN P@ASHA



My unique and innovative role of an Executive in Residence (EIR) for this programme is evidence of SDSB's honest commitment and approach towards a truly futuristic and agile degree. As the knowledge economy rises at a global level, the essential role of technology innovation and entrepreneurship in the economic development of countries is becoming highly recognised; and preempting this trend, MS TME aims to provide a sustainable channel of knowledge transfer between the industry and academia for the benefit of its students. In this degree programme we actively seek a broad range of industry engagements, including but not limited to joint collaborative ventures,

exchange of ideas for commercialisation, entrepreneurial motivation & hands-on training for the right skill sets. Given my role and industry experience of more than two decades in Pakistan's digital journey and entrepreneurial ecosystem, I am confident that curating this degree with SDSB will open many avenues of more interesting partnerships. I would encourage all potential aspiring students to make full use of this opportunity.



**MANAHIL
ASHFAQ
QURESHI**

One of the best things that happened to me in 2020 was becoming a part of something that completely aligned with my passion. I was amazed to know that SDSB, LUMS had launched a Master's degree that was fully equipped to cater to entrepreneurial thinking, creativity, and skills. Anyone who loves turning problems into exciting opportunities through innovation must opt for this programme. Thank you LUMS for embracing me with open arms!



UMAIR ZAHID

I graduated with a degree in Computer Science, and was already running my own software company. I always felt the need to improve my management skills, and wanted to enroll in a Master's degree programme for quite some time. Unfortunately, I could not find any suitable choice that integrated with my technical background. This MS degree in Technology Management and Entrepreneurship not only filled that gap, but is offered by the best management institution in Pakistan. Enrolling in this programme was an easy decision for me.

The Student Experience

After graduating with a degree in Computer Engineering in 2016, I was working in the domain of marketing and product management and needed a degree at the intersection of technology, management and entrepreneurship to bridge the gap between tech and management and pursue my career aspirations. I chose SDSB, a truly global business school, not only for its academic excellence but also for its legacy of chaperoning individuality through teamwork and promoting a culture of ingenuity and self-learning. The highly diversified 1.5-year curriculum of the MS TME programme, combined with the practical component of experiential learning and a strong focus on fostering leadership/entrepreneurial skills, made SDSB the perfect fit for my future ambitions.

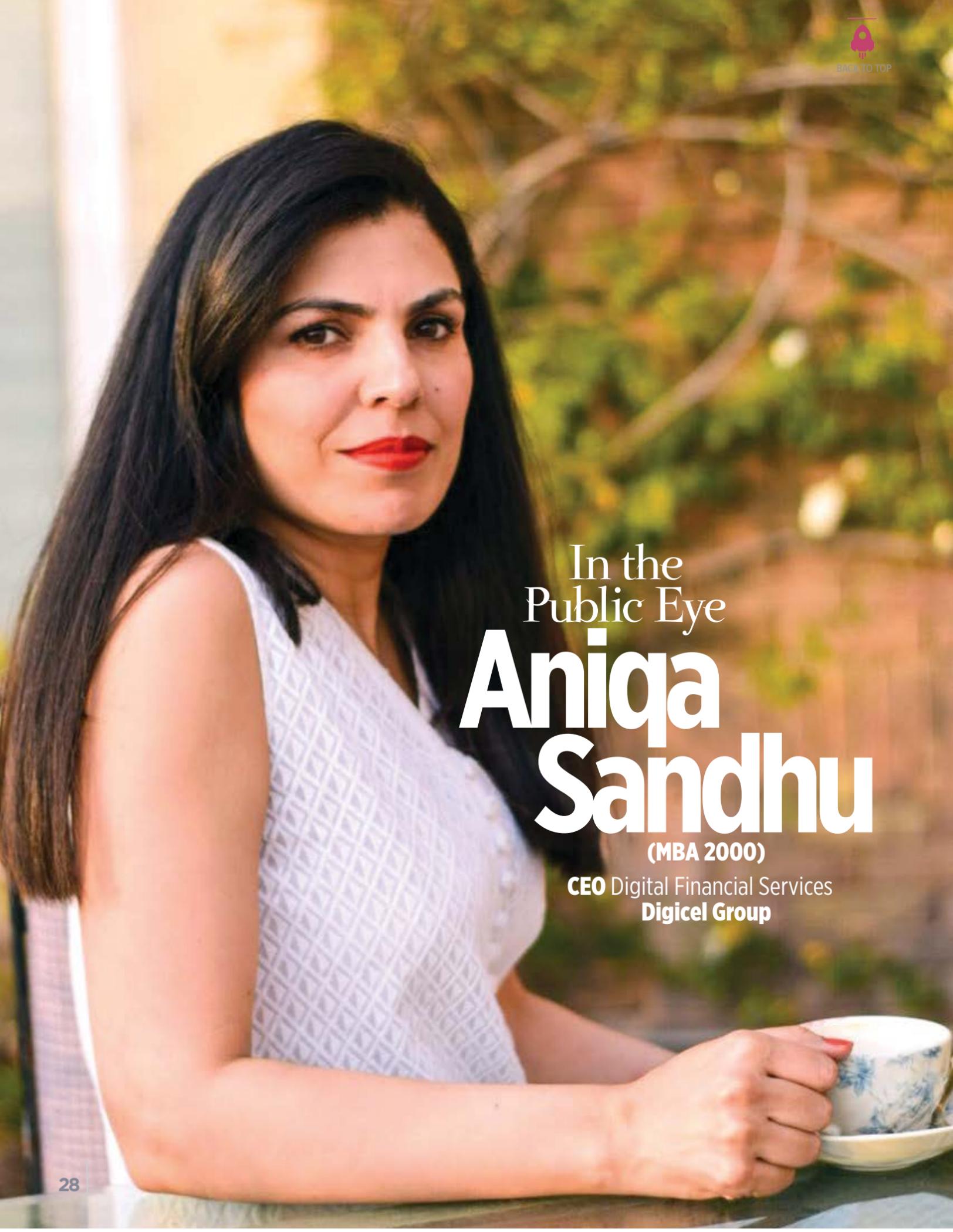


**M. MUNEEB
SHAHID**

The MS TME programme has not only helped me develop a new perspective towards technology management and entrepreneurship, but it has also provided an understanding of the efficient manner in which technology has enabled us. Revolving around the process of learning and relearning, this programme focuses on a student-centred experience with a good balance of theory and practical work while also catering to participants coming in from diverse backgrounds. This programme provides the perfect opportunity to integrate technology with business strategies.



**AMBREEN
ASHFAQ**

A portrait of Aniq Sandhu, a woman with long dark hair, wearing a white sleeveless top with a geometric pattern. She is sitting outdoors, holding a white cup with blue floral patterns. The background is a blurred green and brown outdoor setting.

In the
Public Eye
**Aniq
Sandhu**

(MBA 2000)

CEO Digital Financial Services
Digicel Group

You graduated from SDSB with an MBA degree in the year 2000. What are you doing now?

I am currently the CEO - Digital Financial Services at Digicel Group. Digicel is the largest telecom based in the Caribbean, foraying into cutting edge digital technologies and financial services as a key growth vertical.

Can you tell us about JazzCash and your role in its launch?

I was the founder of JazzCash (known earlier as mobicash) and the only female fintech leader in Pakistan to launch a successful fintech organisation at scale. Today, it is the largest in the country with more than 15 million monthly active customers and more than PKR 3 trillion worth of transactions. We launched the first service in 2008 with a vision of financial inclusion for the people of Pakistan which later led to what is known today as JazzCash. I was responsible for initiating and setting up the financial services business from its core, including creating the brand name, company strategy, setting up of a dedicated business unit, recruiting and growing the team, proliferating organisation and group-wide awareness and buy-in, and introducing several pioneering mobile financial services to the Pakistani market.

The pandemic forced financial institutions to transform digitally to meet the needs of their customers. Do you see this sector adopting artificial intelligence, machine learning and blockchain?

We have already adopted some cutting-edge artificial intelligence and machine learning technologies to support the proliferation of financial services however there is a long way to go before we can say that we are utilising its full potential. Chatbots, fraud detection, risk management are some of the active use case examples benefitting from artificial intelligence/machine learning.

What can be done to promote fintech in Pakistan?

Pakistan is the fifth most populous country in the world, with a young population and an underdeveloped banking infrastructure. 2021 alone has seen more than USD300 million raised by start-ups with a majority of these in fintech alone. We have huge potential waiting to be explored in the Pakistani market. The next wave of fintech will see the removal of archaic banking processes and provide cus-

tomers with unique opportunities to interact with financial institutions through products tailored to individual/business needs with simplified requirements. As new products delight the customers' needs, requirement to go to a bank physically will be completely eliminated, thereby making it accessible across the urban and rural communities, and driving economic activity and growth.

What did you most enjoy about the MBA programme?

It is difficult to isolate any one aspect of the MBA programme as being the most enjoyable, the experience was holistic. However, if I must, I would say that I enjoyed the case study method of teaching the most. Coming from a traditional academic background, where the focus was more on acquiring knowledge rather than applying it, the case pedagogy provided a paradigm shift in learning: it allowed for analytical reasoning and critical thinking skills to be developed and honed. The design of the academic programme, with its emphasis on class participation, group projects, debate and discussion, allowed an exchange of diverse opinions and experiences, which were heard, and on a lighter note - also tolerated. The extent of student inclusion and freedom of thought and expression were for me a winner.

I enjoyed the case study method of teaching the most. Coming from a traditional academic background, where the focus was more on acquiring knowledge rather than applying it, the case pedagogy provided a paradigm shift in learning: it allowed for analytical reasoning and critical thinking skills to be developed and honed.



In the Public Eye

Who was your favourite instructor and why?

The quality of teaching faculty at SDSB at that time was outstanding. I have tremendous respect and regard for each of my instructors. My fondest recollection is of Dr. Wasim Azhar. He was the then Dean of the Business School, which is but one of the many accolades under his belt. His was a personality larger than life: the quiet calm with which he would enter the lecture hall, the patience and pensiveness with which he would listen to the input of the students, the ease with which he would direct the course of the discussion, the confidence he would instill in his pupils and the wisdom which he tried to impart to us through his life lessons. Not only were his academic contributions par excellence, his lessons on integrity and social consciousness were invaluable. I carry them with me to this day.

What has been the biggest challenge since leaving SDSB?

In my opinion the biggest challenge since leaving SDSB has been to prove my mettle as a woman in the corporate world. While the concept of gender equality is gaining momentum in Pakistan, there is still palpable pressure on women to work harder than their male counterparts, to be considered their equals in ability and capacity to deliver results, as well as managing expectations in your personal life. Breaking these barriers has indeed been testing but at the same time rewarding.

Your future goals?

I am so grateful for all the opportunities that have been presented to me and so humbled at the trajectory of my career. As a business management graduate, being the CEO of a multinational company is a dream come true. Going forward, I intend to fulfill the responsibilities of my current role to the best of my abilities. And while the future remains uncertain, my end goal is to return to Pakistan - whether in a professional capacity or otherwise.

What career advice would you give to management students wanting to work in fintech?

In my opinion, fintech or any other field requires passion, commitment and a lot of hard work. No success is overnight and the fear of failure in my opinion is the primary reason that holds people back from exploiting their full potential. If you overcome that fear and are true to your work, success is inevitable!



No success is overnight and the fear of failure in my opinion is the primary reason that holds people back from exploiting their full potential. If you overcome that fear and are true to your work, success is inevitable!



Any good books you have read recently?

While I don't consider myself to be an avid reader, two books have left an indelible impression on me. Interestingly the lessons I take from each one are particularly relevant to the current socio-economic environment in Pakistan. The first is titled *The First Muslim: The Story of Muhammad*, a commentary by Leslie Hazleton and the second is *White Tiger*, a fictional novel by Aravind Adiga, inspired by the working class in India. While the first book focuses on the life of the Prophet, the narrative provides a balanced perspective and encourages tolerance, which we as a society need to exercise more. *White Tiger* on the other hand invokes empathy on the plight of the less privileged in society. With the gap between the have and have nots rising fast, it encourages us to be more mindful of how we behave and to be more grateful for all the advantages that we enjoy.

What is your favourite memory of SDSB?

The MBA programme was rigorous - it was academically challenging and equally competitive. Younger readers may find it hard to digest but missing class was unimaginable, unless the circumstances were dire for so could be the consequences. My most cherished memory in this backdrop was when my friend cut her class to comfort me, despite my efforts to dissuade her. I don't remember the reason for my despair but the image of us sitting on the bench at the main entrance of the quadrangle is still fresh. I am pleased to say that we remain as close today as we were then. Forging lifelong friendships has indeed been the highlight of my journey at LUMS.

What would
you do?



KASB Securities Using Technology to Reclaim itself as a Leading Brokerage of Pakistan

This article is based on the case, KASB Securities – Reclaiming Its Position as a Leading Brokerage of Pakistan authored by M. Adeel Zaffar, Fazal Jawad Seyyed and Hafsa Ashfaq, available on the Harvard Business Publishing Online Catalogue.

Background

Founded by Khadim Ali Shah Bukhari in the early 1950s, KASB Securities was one of Pakistan's oldest and largest brokerage firms. By the 1970s, Khadim had expanded his business in the capital markets with offices in 7 major cities making the company a member of the Karachi, Lahore, and Dhaka stock exchanges. In 1992, KASB became the first brokerage in Pakistan to go public. By the 1990s, electronic trading further helped grow the business. As an early adopter of the internet and other forms of technology, KASB became the largest retail brokerage house in Pakistan with 22,000 clients and a 15% share of all trading in the stock exchange in 2014. As part of the government's drive to privatise the banking sector, the Group acquired a small commercial bank and merged the securities business under the label of KASB Bank.

KASB Bank rapidly expanded its branch network from 22 branches at acquisition to 112 branches in 2015. While the bank attracted foreign investment, it was hit hard by the 2008 financial crisis when non-performing loans (NPLs) spiked to 18% of the loan portfolio. Failing to meet minimum paid-up capital requirements established by the State Bank of Pakistan, KASB Bank was forced to merge with BankIslami. KASB securities thus became a subsidiary of BankIslami and was renamed BankIslami Pakistan Securities.

The Challenge

In 2018, Ali Farid Khwaja, an accomplished investment professional, decided to relaunch the family business to reposition KASB as a technology-driven and innovative brokerage house that would appeal to retail investors. With the mission to "[d]emocratise investment," the company targeted retail savers to invest in stocks. The strategy was based on reaching out to the mass population through technology and social media marketing; and providing financial education through webinars, retail roadshows, and online MOOCs. The company provided a mobile application, Ktrade, to invest directly in stocks without the need to meet or talk to a middleman. Ktrade was Pakistan's first trading and investor education platform. By April 2019, Ktrade was handling transactions worth USD 500,000 per day, and by early 2020, the application had over 50,000 retail

users. Ktrade generated revenue from four streams: (1) transactional fees on retail trading, (2) transactional fees on institutional trading, (3) payments for research production, and (4) treasury income. Transaction fees accounted for 60% of total revenues, while treasury income represented 40% of revenues. By early 2020, Ktrade had developed a diversified client base. By mid-2020, KASB was able to gain a 2% share of all trading volumes at PSX and was becoming the fastest-growing stock brokerage in Pakistan despite the downward trending stock market. KASB's business segments included stock trading, research and sales. It had become a global company with sales offices in London, Washington, and Hong Kong. Ali was confident that the continued emphasis on technology to access markets, innovation and investor education, and building a relationship of trust was essential to enhance financial inclusion in Pakistan.

The Way Forward

As time passed, Ali had to figure out what type of growth strategy should KASB adopt? What marketing and operational strategy could KASB use to capitalise and sustain its distinctive edge over its rivals to grow its retail clientele? How would KASB raise capital to fund the massive investment required to acquire clients? How much would it need to invest in client acquisition? And finally, Ali wondered whether his personal and professional sacrifices to revive KASB were worth it or not?

What strategy do you think Ali Farid Khwaja should adopt for KASB to grow and distinguish itself in terms of its business model and the kind of investors and partners it seeks?

REFERENCE

Zaffar, M. A., Seyyed, F. J., & Ashfaq, H. (2021, June 29). *KASB Securities - Reclaiming Its Position as a Leading Brokerage of Pakistan*. Harvard Business Publishing Education. Retrieved January 12, 2022, from <https://hbsp.harvard.edu/product/LCA065-PDF-ENG?Ntt=KASB+>



M. Adeel Zaffar

Associate Professor
adeel.zaffar@lums.edu.pk



Fazal Jawad Seyyed

Visiting Faculty
fazal.jawad@lums.edu.pk



Hafsa Ashfaq

Research Associate
hafsa.ashfaq@lums.edu.pk



BACK TO TOP



Faculty
in Focus

Raja Usman Khalid

talks to us about his experience in
Germany, supply chains, and what's
on his reading list.

Please tell us a little bit about yourself.

Well, this is always a tricky and difficult question to answer. I completed my graduation in agriculture sciences back in 2008 from PMAS-Arid Agriculture University, Rawalpindi. I then left for Germany for my master's and PhD. Having completed my PhD in 2017, I returned to Pakistan and joined Information Technology University, Lahore. I served there for two years and then joined LUMS in January 2020.

On the personal side, I am more of an introvert by nature. I am always trying to build tranquility around myself; however, in the bustling city of Lahore, that dream is a bit hard to realise.

How did you get into teaching?

After my doctorate, teaching and research seemed to be the only option left for me. I like the freedom to work at my own pace, explore new areas to ponder over, and, of course, play my part in building a knowledge-based society. With this understanding in the background, I think I am not meant for the fast-paced corporate sector. Academia offered me all that I was looking for, and now when I am part of it, I am enjoying every single day of my professional life.

What courses are you teaching at SDSB?

I teach at the undergraduate, graduate and executive levels. My typical offerings are supply chain management related, e.g., supply chain and logistics management, and qualitative and quantitative research methods at the undergraduate level; supply/procurement management to graduate students; and related courses to business executives.

How was your experience at the University of Kassel, Germany?

Fantastic, the institute groomed me a lot, both personally and professionally. For my graduate programme, I was enrolled in a countryside campus in a small village called Witzenhausen, far away from the noisy city. I also used to live there and got the opportunity to experience the country life of Germany. For my PhD, I moved to the main campus of the University located in the

city of Kassel. That was again a joyful experience. Germans are well known for their straightforwardness and organisation. I am still trying to build those attributes within myself.

Your MSc is in International Food Business, and your doctorate is in Supply Chain Management. How do these two areas merge in your research interests?

My MSc thesis was titled "Sustainable Supply Chain Management in Fresh Food Supply Chains". The MSc was nicely linked with my undergraduate because it was food focused on the one



We are therefore seeing a push towards greater integration and goal alignment among the business actors. For developing economies like Pakistan this remains more crucial.



hand and on the other, having taken courses like supply chain management and strategic operations management in my master's, I developed an urge to learn more about how products move along the chain from the ultimate supplier to the ultimate consumer. Consequently, I developed my PhD upon sustainable supply chain management learnings from my master's programme. Sustainability lies at the core of my PhD work, where I was looking more at the supply chain management issues confronted by organisations in developing countries. While my PhD does not exclusively focus on agriculture supply

chains, the learnings from my doctorate are more general in nature which can easily be used to analyse the related phenomenon in the food industry.

Why do you feel the study of supply chain management continues to be important?

Businesses have experienced a revolutionary change from a hierarchical organisational structure to one that is more specialised and focused at building and nurturing core capabilities. Phenomenon like globalisation and technological advancements, particularly in areas of information and communication have made it possible for the business actors located in distinct geographical regions to interact and collaborate for the pursuit of superior customer services. In this context, market competition dynamics have also changed. Today, the competition is not between individual firms but between supply chains. Firms that are part of more efficient supply chains ultimately outperform those that are part of less efficient supply chains. Moreover, we have learned that sustainability-related targets are hard to achieve unless all the various direct and indirect supply chain actors act as a unified whole. We are therefore seeing a push towards greater integration and goal alignment among the business actors. For developing economies like Pakistan this remains more crucial, appreciation of a holistic supply chain understanding will be important if we are to increase our exports and integrate our local producers in global supply chains and not compromise on ecological and social denominators of our society.

In this backdrop I see the field of supply chain management as quite relevant and important which will continue to evolve in the years to come.

What are you reading or watching these days?

I am reading *Ahya-ul-Uloom* by Imam Ghazali.

Are you sharing **fake** news?

This article is based on the paper,
*Can we stop the spread of false
information on vaccination? How
online comments on vaccination
news affect readers' credibility
assessments and sharing
behaviors*, published in Science
Communication (2021)



KHUDEJAH ALI
Assistant Professor
k.ali@lums.edu.pk



INTRODUCTION

The widespread uptake in social media consumption has transformed information sharing, including the spread of fake news. Research has shown a negative impact of fake news and misinformation on societally important issues, including health. The issue gains additional importance in the midst of the Covid-19 pandemic, particularly in the context of antivaccine movements and the associated proliferation of vaccination-related fake news.

RESEARCH SUMMARY

John Petit, Cong Li, Barbara Millet (University of Miami), Khudejah Ali (LUMS), and Ruoyu Sun (University of Miami) posit that online news readers attribute the source of news to other readers, with “likes”, “shares”, and “comments” functioning as sources. This study investigates the difference of credibility perception between real and fake news based on “comments”, which are perceived to have a higher engagement level as compared to “likes” and “shares”. The authors used various theoretical frameworks, including the MAIN model (modality, agency, interactivity, and navigability), information sharing theory, negativity bias and attribution theory to analyse a subject-based experiment. Each framework addressed unique properties and challenges in the context of studying the mechanism with which online readers perceive credibility of fake news or real news.

The authors designed a 2 (type of news: fake vs. real) × 2 (presence of negative user comments: yes vs. no) × 2 (presence of positive user comments: yes vs. no) experiment to examine differences in news credibility and sharing intention between fake versus real news on vaccination. 343 adult participants residing in the United States, of which 51% were female and 49% were male, answered an online questionnaire.

The results showed that fake news generated a lower level of perceived credibility versus real news, thereby reducing news sharing intention. Moreover, negative user comments significantly lowered perceived news credibility, especially for real news. The presence of positive user comments, however, mitigated this effect.

These results have significant theoretical and practical implications for future research on fake news about health and science.

THEORETICAL IMPLICATIONS

Theoretically, the mediation effect demonstrated in the results indicates that news credibility has a crucial role in spreading fake news. People share fake news articles they believe are credible. The study corroborates negativity bias by establishing the adverse impact of negative comments on news credibility, particularly with respect to real news. In other words, the presence of negative comments on a real news article may lead people to believe that it is fake. Positive comments on their own did not increase perceived news credibility; rather they mitigated the adverse impact caused by negative comments to the credibility of the real news article.

PRACTICAL IMPLICATIONS

From a practical standpoint, it is evident that negative user comments significantly decrease the perceived credibility of online news, especially when positive comments are absent and when the news is real. As such, online readers need to be cautious and vigilant with regard to their commenting behaviour. One-sided negative comments on a real news article with accurate and true information may in fact stop its spread.

In order to combat fake news in science and health communication, journalistic professionalism is critically important. Science and health educators and writers should be careful in their writing and try to demonstrate objectivity, and include concise and factual evidence. Being able to properly identify which contextual circumstances favour or discourage the spread of fake news could translate to the difference between life and death. While vaccines brought hope, the emergence of fake news revealed the necessity to further examine the circumstances leading to its spread. In this sense, the findings of this study provide relevant theoretical and practical contributions for further research to build on.

● Reference

Petit, J., Li, C., Millet, B., Ali, K., & Sun, R. (2021). Can we stop the spread of false information on vaccination? How online comments on vaccination news affect readers' credibility assessments and sharing behaviors. *Science Communication*, 43(4), 407-434. <https://doi.org/10.1177/10755470211009887>

Centre for Business and Society

The Centre for Business and Society (CBS) is a multidisciplinary, inclusive and responsive platform that brings efforts and conversations at the intersection of business and society onto a wider stage of influence with the goal of rethinking the role of businesses for sustainable societies.

The Centre's blueprint draws largely from the 2030 Agenda for Sustainable Development and the 17 sustainable development goals (SDGs) that lie at its

heart. Ethics, collective awareness and social responsibility are the underlying themes for all of the Centre's activities. In the year 2021, one of the Centre's key focus areas has been on SDGs that champion sustainability causes and address environmental issues.

This academic year, CBS has been actively targeting the following SDGs, and many of its activities have been aligned with the idea of creating a more sustainable world

for all:

- Goal 6: Clean Water and Sanitation
- Goal 7: Affordable and Clean Energy
- Goal 11: Sustainable Cities and Communities
- Goal 12: Responsible Consumption and Production
- Goal 13: Climate Action

HIGHLIGHTS FROM 2021

Partnership with WWF-Pakistan

On June 5, 2021, which is World Environment Day, CBS joined hands with WWF-Pakistan to sign an MoU for collaboration on various interventions that would promote sustainability efforts and safeguard the environment. This collaboration aims to work together on avenues related to responsible business practices and sustainability for a collectively aware society.

As a means of highlighting the importance of World Environment Day, CBS conducted a social media engagement activity to encourage people to commit to restoring the environment by using a Facebook frame pledge. CBS welcomed its social media followers to think and reflect on how they could play a part to promote this year's theme of Ecosystem Restoration and be responsible consumers to create a sustainable world for all. Moreover, as an office committed to reducing its ecological footprint, CBS pledged to:



1. Print less paper and use more digital documents,
2. Turn off extra lights every time the team steps out of the offices,
3. Adopt new green habits for responsible water consumption, and
4. Promote recycling and an anti-plastic office culture.

Christmas Concert and Dinner in collaboration with SDSB

On December 7, 2021, CBS collaborated with SDSB to organise a Christmas concert to celebrate the holiday spirit with the staff and Christian community at the school. The event was attended by a diverse audience which included faculty and staff members from SDSB and students from The Salvation Army.

After a brief note by the Honorary Dean, Dr Alnoor Bhimani, who lauded the inclusive spirit of LUMS that celebrates diversity, a musical performance was led by musicians from LUMS. On the occasion, the Chief of the Salvation Army also expressed his thoughts on peace and harmony that inclusiveness helps to inculcate in a society. One of CBS' core values is celebrating inclusiveness and diversity. This collaborative effort was a step towards fulfilling that objective by giving a platform to all communities of LUMS.



Training Session on Programme and Project Management: Monitoring and Evaluation Perspective



From March 15 to 19, 2021, CBS conducted trainings for 22 officers of the Merged Areas under the Governance and Policy Project (GPP) of the Planning & Development Department, Government of Khyber Pakhtunkhwa. The objective of these trainings was to build the capacity of the Planning and Development Department staff working at the secretariat and district level.

SDSB Faculty members Dr Anjum Fayyaz, Dr Shakeel Sadiq Jajja and Dr Syed Aun Raza Rizvi, led this five-day training programme. On the last day, Mr Amer Sultan Tareen, Secretary Planning & Development Department, Khyber Pakhtunkhwa, and Mr Syed Zahir Ali Shah, Director General PCNA, were the chief guests. They attended the presentations given by programme participants and lauded the training they received.

Rethinking Business & Society Webinar Series



In summer 2021, CBS launched an exciting series of virtual sessions titled "Rethinking Business & Society Webinar Series". The vision behind this series was to have several different sessions under a selected overarching theme to bring together practitioners and academics for invigorating debates and open discourse.

As CBS has been focusing on environment-related SDGs this year, the official theme of the first set in this webinar series was Sustainability in Focus. CBS hosted a monthly live discussion over a period of three months in which academics from different schools of LUMS were invited to have open discussions on pressing environmental concerns, including the climate crisis, air pollution and water sustainability.

The first sustainability webinar, "The Climate Crisis and Our Future", was organised on July 15, 2021. The session featured Mr Ahmed Rafay Alam, an expert in Environmental Law and Mr Uzair Kayani, Acting Head of the Shaikh Ahmad Hassan School of Law at LUMS.

CBS organised the second session on August 6, 2021, "Charting Pakistan's Air Quality Policy Landscape". The second session featured Dr Sanval Nasim, Assistant Professor (MGSHSS) and SDSB faculty member and CBS Director, Dr Zehra Waheed. The third session was held on September 24, 2021. This session was titled "Conserving Water via Digital Sustainable Agriculture" and featured Dr Muhammad Abubakr, Associate Professor, SBASSE-LUMS, and the Founding Director of the Centre for Water Informatics & Technology (WIT). Dr Zehra Waheed moderated the session.



CBS Ambassadors for Change Programme 2021-22

After the success of the first chapter in 2019-20, CBS collaborated with The Citizen's Foundation (TCF) again this year for the second chapter of the Ambassadors for Change Programme. The outbreak of the COVID-19 pandemic has had a severe impact on the education sector, particularly affecting schooling, attendance and learning of students from marginalised communities. Given the need of the hour, TCF piloted a virtual platform with online lessons, quizzes, tutorials and chat forums.

The virtual chapter of the CBS Ambassadors for Change Programme targeted TCF alumni who had passed their 10th-grade exams and planned to apply to universities after their 12th-grade exams. A cohort of 35 volunteers from schools across LUMS was taken on board as Coordinators, English Learning Coaches and Mathematics Learning Coaches.

The Learning Coaches interacted with designated students through the group discussion forum, private messaging, and correspondence via the Moodle app. Their responsibilities included encouraging students to complete their weekly assigned tasks by using the course tracker, tracking student attendance and engagement with the application, monitoring student progress, having counselling sessions, and grading tests.

On November 5, 2021, CBS organised a follow-up activity for the CBS Ambassadors for Change Programme 2021. As the Foundation Cycle was held virtually in August 2021, CBS invited some of the TCF alumni from the cohort along with the TCF team to meet and interact with the CBS team and volunteers on campus. The activity included focus groups to encourage an up close and personal, in-depth discussion with the participants regarding their experience in the programme.

The conversation was also centred around making future cycles of the programme more effective and efficient. The CBS team had a wonderful experience interacting with the participants who enthusiastically voiced their opinions and shared their feedback.

Launch of the Revamped CBS Website

On November 6, 2021, CBS announced the launch of its revamped website. The new CBS website contains up-to-date information about the Centre's exciting activities, one-of-its-kind student collaborations, seminars, conferences, trainings and more.



CBS Social Impact Fund 2021: Announcement of winners

In Spring Semester 2021, CBS held a student competition titled CBS Social Impact Fund 2021. CBS invited students with innovative and impactful social improvement ideas to win seed money in order to expand their projects/ideas. The objective of this competition was to engage LUMS students and

encourage innovative thinking for impactful social change.

CBS suggested the following ways to utilise the seed money:

- Increase scalability and impact of the project,
- Increase the geographic presence of the

- project by expanding to new areas, and
- Introduction of a new aspect to the existing model to address challenges posed by the pandemic.

CBS is excited to announce that after a thorough review of the entries, the panel of expert judges selected the following projects:



Winner: Chiraagh Vocational Training School

Runner-up: STOORE

The winner and runner-up were awarded PKR 70,000 and PKR 30,000, respectively.

CBS wishes the winners good luck with their projects and hopes that this will inspire other LUMS students with good ideas to come forward and pitch their impactful initiatives in future competitions.

CBS and LEAF PlasQuit Awareness Campaign

CBS collaborated with LUMS Environmental Action Forum (LEAF) on November 24, 2021, for the “PlasQuit” awareness campaign, which encouraged the LUMS community to reduce the use of single-use plastics. This collaboration was a part of the Centre’s active efforts in 2021 towards core issues revolving around the environment-related SDGs.

The campaign engaged LUMS students in a plastic waste collection drive held on campus, followed by creating structures out of the plastic waste collected. The campaign also put up print graphics that showed the statistical evidence of plastic consumption and its harmful impact on the environment, and a pledge wall was installed where LUMS community members were encouraged to pledge to be responsible plastic consumers.



What would
you do?



The Best Things in Life are Free

This article is based on the case, Zong Pakistan: In Search of Profits in a 'Free' World authored by Muntazir Mehdi, Deputy Director Digital Channels, Zong and Dr Ehsan ul Haque, available on the Harvard Business Publishing Online Catalogue.

Background

The Pakistani cellular industry started in 1990 when the Government of Pakistan awarded Advanced Mobile Phone System (AMPS) licenses to two players, Paktel and Instacom. Both these players could not compete with the later entrants with better technology and more aggressive marketing strategies. Paktel eventually sold out to CMPak in 2007. CMPak was a fully owned subsidiary and the first global venture of China Mobile Communications Corporation, the world's largest telecom operator headquartered in Beijing, China.

CMPak introduced its global brand, Zong, in Pakistan and started investing heavily in building its brand and market share. Significant investments were made to expand Zong's network across the country and position Zong as a price leader in an already fiercely competitive industry. The results were positive as Zong increased its market share steadily, from a paltry less than 2% in 2006-07 to a decent 20% by 2014-15. However, this increase in market share did not result in increased profitability. Like other players in the cellular industry, Zong was also looking for innovative ways to improve both its top and bottom line.

The Challenge

By late 2013, Zong's management had decided to move away from relying on the price leadership strategy they followed to gain market share. They chose to focus on the emerging data segment instead of the voice/SMS market segments. Their strategy was to be a first mover and dominate this segment. Consequently, in 2014, Zong acquired 20MHz of spectrum for around USD 500 million and launched the first 4G service in Pakistan in addition to 3G service. By 2017, Zong had invested heavily in network expansion for 3G and 4G, thereby upgrading 70% of its network to 3G/4G, the largest among all the competitors. These efforts and investments led to Zong capturing the leading market share in the 3G/4G market.

In November 2017, Jazz, Zong's largest competitor, launched VEON in Pakistan with a big bang 'Be Truly Free' campaign. VEON offered free in-app voice calling and messaging. However, this required both the communicating parties to have the VEON app. Jazz zero-rated the app usage on its network to incentivise the app uptake and usage, thereby ensuring that Jazz users could use the app even with zero balance. It seemed that to rapidly scale the uptake of the platform, Jazz

had decided to take a hit on their existing revenues for both voice and data.

Zong's marketing team had been alerted about the impending VEON launch. They knew that it was Jazz's attempt to attack Zong's leadership position in the 3G/4G data market. Given Jazz's dominant subscriber base and the free VEON offer, there was a clear signal that Jazz planned to dominate both voice and data markets in the future. There was also the danger of losing Zong subscribers to the attractive VEON offer.

The Way Forward

Moied Javeed, Chief Commercial Officer (CCO) of CMPak needed to come up with his response to the free VEON App. Moied felt that VEON's promise of free calls and chats over the internet would seriously dent his own brand's efforts to strengthen their leading position in the data market of Pakistan. His team had come up with three retaliatory options:

Option 1:

Hard bundling free WhatsApp with existing promotion offers

Option 2:

Launching Zong's own free app

Option 3:

A free WhatsApp offer.

Each option had its costs and benefits. The decision had both tactical and strategic aspects. The tactical front required handing short-term threats to Zong's positioning and profits. On the strategic front, it confronted the challenges that cellular companies face on account of digital disruption.

What option could lead to a sustainable competitive positioning leading to profits in a highly fluid and uncertain digital future? What would you advise?



Ehsan ul Haque
Professor Emeritus, SDSB
ehsan@lums.edu.pk

What would you do?



Moied Javeed, Chief Commercial Officer (CCO) of CMPak needed to come up with his response to the free VEON App.

Moied felt that VEON's promise of free calls and chats over the internet would seriously dent his own brand's efforts to strengthen their leading position in the data market of Pakistan. His team had come up with three retaliatory options.



Reference

Mehdi, M., Haque E.U. (2020, August 31). *Zong Pakistan: In Search of Profits in a 'Free' World*. Harvard Business Publishing Education. Retrieved February 07, 2022, from <https://hbsp.harvard.edu/product/LCA059-PDF-ENG>

DR. KHUDEJAH ALI

- Can We Stop the Spread of False Information on Vaccination? How Online Comments on Vaccination News Affect Readers' Credibility Assessments and Sharing Behaviors (with John Petit, Cong Li, Barbara Millet & Ruoyu Sun) *Science Communication*
- Fake news on Facebook: examining the impact of heuristic cues on perceived credibility and sharing intention (with Cong Li, Khawaja Zain-ul-abdin & M. Adeel Zaffar) *Internet Research*

DR. FERHANA AHMAD

- Portfolio optimization of financial commodities with energy futures (with Lu Wang, Gong-li Luo, Muhammad Umar & Dervis Kirikkaleli) *Annals of Operations Research*
- Temporal effects of financial globalization on income inequality (with Haris Khan & Choudhry Tanveer Shehzad) *International Review of Economics & Finance*

DR. GHUFRAN AHMAD

- How good citizens enable bad leaders (with Anthony C. Klotz & Mark C. Bolino) *MIT Sloan Management Review*

DR. JUNAID ASHRAF

- Doing transgender 'right': Bodies, eroticism and spirituality in khwajasira work (with Daniela Pianezzi & Muhammad Aqeel Awan) *Human Relations*

DR. SAAD AZMAT

- Religiosity, neglected risk and asset returns: Theory and evidence from Islamic finance industry (with M. Kabir Hassan, Haiqa Ali, & A.S.M. Sohail Azad) *Journal of International Financial Markets, Institutions and Money*
- Ethical Foundations of the Islamic Financial Industry (with Maryam Subhan) *Journal of Business Ethics*

SELECTED SCHOLARLY HIGHLIGHTS 2021

DR. MOHSIN BASHIR

- The interactive influence of public service motivation, perceived reward equity, and prosocial impact on employee engagement: a panel study in Pakistan (with Bradley E. Wright & Shahidul Hassan) *Public Management Review*

DR. SYED ZAHOOOR HASSAN

- Manufacturing value chain for battery electric vehicles in Pakistan: An assessment of capabilities and transition pathways (with M. Shakeel S. Jajja, Muhammad Asif & Cory Searcy) *Journal of Cleaner Production*

DR. SHAKEEL SADIQ JAJJA

- A Review of Literature on the Antecedents of Electric Vehicles Promotion: Lessons for Value Chains in Developing Countries (with Muhammad Asif & Cory Searcy) *IEEE Transactions on Engineering Management*
- Manufacturing value chain for battery electric vehicles in Pakistan: An assessment of capabilities and transition pathways (with Syed Zahoor Hassan, Muhammad Asif & Cory Searcy) *Journal of Cleaner Production*

DR. ZAIN-UL-ABDIN KHAWAJA

- Fake news on Facebook: examining the impact of heuristic cues on perceived credibility and sharing intention (with Khudeja Ali, Cong Li & M. Adeel Zaffar) *Internet Research*

DR. MUHAMMAD ABDUR RAHMAN MALIK

- Organizational justice, psychological ownership and organizational embeddedness: a conservation of resources perspective (with Sultan Adal Mehmood, Muhammad Saood Akhtar, Naveed Ahmad Faraz, & Mumtaz Ali Memon) *International Journal of Manpower*

DR. AYESHA MASOOD

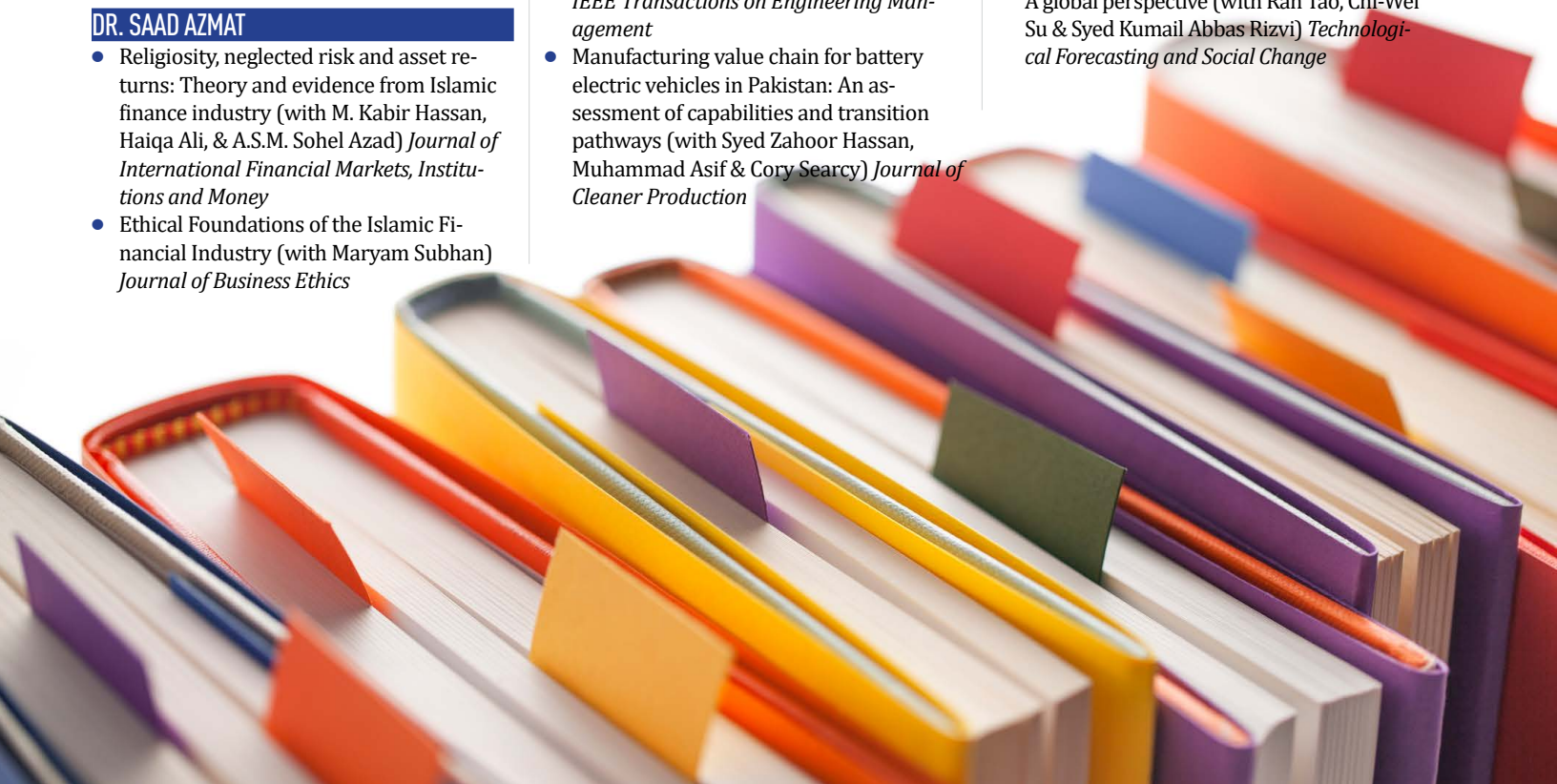
- Repairing the State: Policy Repair in the Frontline Bureaucracy (with Muhammad Azfar Nisar) *Public Administration Review*

DR. UMMAD MAZHAR

- Productivity, obesity, and human capital: Panel data evidence (with Fahd Rehman) *Economics & Human Biology*

DR. BUSHRA NAQVI

- Dance with the devil? The nexus of fourth industrial revolution, technological financial products and volatility spillovers in global financial system (with Muhammad Umar & Syed Kumail Abbas Rizvi) *Technological Forecasting and Social Change*
- Can Fintech development pave the way for a transition towards low-carbon economy: A global perspective (with Ran Tao, Chi-Wei Su & Syed Kumail Abbas Rizvi) *Technological Forecasting and Social Change*



- Is there a green fund premium? Evidence from twenty seven emerging markets (with Nawazish Mirza, Syed Kumail Abbas Rizvi, Małgorzata Porada-Rochoń & Rania Itani) *Global Finance Journal*
- Carbon neutrality, bank lending, and credit risk: Evidence from the Eurozone (with Muhammad Umar, Xiangfeng Ji & Nawazish Mirza) *Journal of Environmental Management*
- Is green investment different from grey? Return and volatility spillovers between green and grey energy ETFs (with Syed Kumail Abbas Rizvi & Nawazish Mirza) *Annals of Operations Research*
- The resilience of Islamic equity funds during COVID-19: Evidence from risk adjusted performance, investment styles and volatility timing (with Nawazish Mirza, Syed Kumail Abbas Rizvi, Irum Saba & Larisa Yarovaya) *International Review of Economics & Finance*

DR. MUHAMMAD AZFAR NISAR

- Repairing the State: Policy Repair in the Frontline Bureaucracy (with Ayesha Masood) *Public Administration Review*

DR. FAHD REHMAN

- Productivity, obesity, and human capital: Panel data evidence (with Ummad Mazhar) *Economics & Human Biology*

DR. SYED KUMAIL ABBAS RIZVI

- Is green investment different from grey? Return and volatility spillovers between green and grey energy ETFs (with Bushra Naqvi & Nawazish Mirza) *Annals of Operations Research*
- Can Fintech development pave the way for a transition towards low-carbon economy: A global perspective (with Bushra Naqvi, Ran Tao, & Chi-Wei Su) *Technological Forecasting and Social Change*
- Is there a green fund premium? Evidence from twenty seven emerging markets (with Bushra Naqvi, Nawazish Mirza, Małgorzata Porada-Rochoń & Rania Itani) *Global Finance Journal*
- The impact of carbon neutrality on the investment performance: Evidence from the equity mutual funds in BRICS (with Xiangfeng Ji, Yusong Zhang, Nawazish Mirza & Muhammad Umar) *Journal of Environmental Management*
- COVID-19, Lockdowns and herding towards a cryptocurrency market-specific implied volatility index (with Ghulame Rubbaniy, Stathis Polyzos & Abiot Tessema) *Economics Letters*
- The resilience of Islamic equity funds during COVID-19: Evidence from risk adjusted performance, investment styles and volatility timing (with Nawazish Mirza, Irum Saba, Bushra Naqvi & Larisa Yarovaya) *International Review of Economics & Finance*

DR. FAZAL JAWAD SEYYED

- Impact of gender on access to finance in developing countries (with Nighat Seema & Choudhry Tanveer Shehzad) *Applied Economics*

DR. CHOUDHRY TANVEER SHEHZAD

- Impact of gender on access to finance in developing countries (with Nighat Seema & Fazal Jawad Seyyed) *Applied Economics*
- Temporal effects of financial globalization on income inequality (with Haris Khan & Ferhana Ahmad) *International Review of Economics & Finance*

DR. JAWAD SYED

- The interaction between gender and informal social networks: An East Asian perspective (with Andri Georgiadou) *Human Resource Management Journal*
- Female embodiment and patriarchal bargains: a context-specific perspective on female politicians in Pakistan (with Mariam Mohsin) *Third World Quarterly*

DR. MUHAMMAD TAYYAB

- An interactive fuzzy programming approach for a sustainable supplier selection under textile supply chain management (with Biswajit Sarkar) *Computers & Industrial Engineering*
- Polychronicity, work engagement, and turnover intention: The moderating role of perceived organizational support in the hotel industry (with Muhammad Asghar, Nida Gull, Song Zhijie, Rui Shia & Xiaolong Tao) *Journal of Hospitality and Tourism Management*

DR. MUHAMMAD ADEEL ZAFFAR

- Fake news on Facebook: examining the impact of heuristic cues on perceived credibility and sharing intention (with Khudejah Ali, Cong Li, & Khawaja Zain-ul-abdin) *Internet Research*

News & Events @SDSB 2021



LUMS Wins Global CASE Platinum Award for its National Outreach Programme

In July 2021, LUMS won the 2021 CASE Platinum Award for Best Practices in Diversity, Equity, and Inclusion for its National Outreach Programme (NOP). These awards recognise best programmes and practices in educational advancement around the globe. According to the CASE Platinum Award judges, "This program's ability – through disciplined outreach and coordination – to identify talent from all parts of Pakistan is impressive...This entry displayed sustainability and growth and could be a model for organizations and universities globally." CASE is a prestigious not-for-profit organisation dedicated to educational advancement with global institutions who share the goal of championing education to



transform lives and society. The NOP Programme at LUMS aims to make quality education accessible to all. To date, nearly 1,200 students from 136 cities and small towns across Pakistan have been a part of this initiative.

LUMS And University of Baltistan: An Enriching Partnership

Lahore University of Management Sciences recently entered a partnership with the University of Baltistan, Skardu. This includes an exchange programme of 150 students from both universities, as well as research and teaching collaborations in Green Energy, Water Management and Entrepreneurship. On December 17, 2021 a delegation from the University of Baltistan visited Suleman Dawood School of Business for a tour of the facilities. The delegation visited various offices at SDSB and was briefed on operational activities by representatives from respective units. The delegation also met with faculty members to discuss instructional strategies, co-teaching, and course creation to facilitate transfer of knowledge, expertise, experience, skills, and resources in both directions.



Dr. Alnoor Bhimani awarded the BAFA Lifetime Achievement Award

SDSB Honorary Dean, Dr. Alnoor Bhimani, has been awarded the 2021 British Accounting and Finance Association (BAFA) Lifetime Achievement Award for his significant contributions to UK academic accounting and finance through research and teaching. BAFA is a society of accounting and finance academics that aims to advance the knowledge and understanding of education and research in all areas of accounting and finance, and promote closer relations among academics, accounting practitioners and others in the development of accounting and finance.

Faculty Promotions

In recognition of excellence in teaching, service, and scholarly contributions two faculty members were promoted in 2021:



Mr. Asad Alam was promoted to Associate Professor.



Dr. M. Shehryar Shahid was promoted to Associate Professor with tenure.

Congratulations!



Convocations 2020 and 2021

Fulfilling a promise made to the graduates of 2020 and 2021, LUMS organised the first in-person convocation ceremonies since 2019 on January 15 and January 16, 2022, for the class of 2020 and 2021, respectively. The ceremonies were officiated by LUMS Pro-Chancellor, Mr. Abdul Razak Dawood. Founding Pro Chancellor, Mr. Syed Babar Ali, and member, LUMS Board of Trustees, Dr. Pervez Hassan were also present on both days. A warm address by the Registrar, Ms. Zara Fateh Qizilbash, welcomed students and their families on both days followed by exclusive talks by the Vice Chancellor, Dr. Arshad Ahmad, and the keynote speakers.

LUMS was privileged to host educationist, public intellectual and human rights activist, Dr. Arfa Sayeda Zahra and acclaimed architect and director of Arshad Shahid Abdulla (Pvt.) Ltd, Mr. Shahid Abdulla as keynote speakers for the convocation ceremonies. The convocation addresses were followed by the award of degrees to all graduating students, robing of the PhD graduates, and the presentation of the National Management Foundation awards and medals to high performing students. Associate Dean Academics, Dr. Syed Aun R. Rizvi conferred the degrees to the 2020 and 2021 SDSB graduates.

LUMS Staff Scholarships for SDSB Graduate Programmes

As Pakistan's top business school, SDSB aims to develop ideas and people for the betterment of business and society. SDSB understands the importance of creating an environment in which all students including LUMS staff can reach their full potential. In 2021, SDSB announced that any LUMS staff member gaining admission to a master's programme offered by the business school will be offered a 50% scholarship. SDSB is the first business school in the world to offer its university staff a 50% scholarship. To qualify, the staff member(s) will need to satisfy all standard admission requirements and meet additional criteria established by the University.



THREE NEW PROGRAMMES THREE NEW PATHS TO SUCCESS



Three New Master's Programmes

In 2021, SDSB added three new specialised 1.5-year Master of Science (MS) programmes. Accounting and Analytics (weekend), Financial Management (full time) and Supply Chain & Retail Management (weekend). The Master of Science degrees are envisioned to provide an intensive, rich, and innovative understanding of the intersection between business fundamentals and a focused specialisation area. All MS programmes at SDSB include a field project to enable practical engagement and application of knowledge in the industry.

SDSB-LUMS Celebrates its Brightest Students at the Dean's Honour List Ceremony

The Dean's Honour List ceremony for undergraduate students of SDSB was held on December 3rd, 2021. The Dean's Honour List recognises outstanding academic excellence of students who score a Grade Point Average (GPA) of at least 3.60, and display integrity and good conduct. A total of 231 undergraduate students from SDSB were honoured at the ceremony for Academic Year 2020-2021 at an event attended by more than 650 guests, including proud family members and friends, as well as LUMS administration and members of the Management Committee. This included 65 students from the SDSB undergraduate class of 2022; 80 students from the undergraduate class of 2023; and 86 undergraduate students from the Class of 2024.

In addition to being included in the Dean's Honour List for AY 2020-21, SDSB students performed notably well at the University level. BSc MS junior, Alina Anjum, was recognised as the top performer among third year students of all undergraduate programmes at the University, earning the Chaudhry Nazar Mohammad Scholar award. Hamza Said, BSc ACF, secured the second position overall among second year (sophomore) undergraduate students at LUMS. Marium Naeem (BSc ACF) secured the overall second position among freshmen (first year) students at LUMS. Honorary Dean SDSB, Dr. Alnoor Bhimani, highlighted how SDSB stood out as a regional leader in business education, and outlined future initiatives to positively impact business and society.



SDSB Faculty and Staff Retreat

In November 2021, SDSB faculty and staff attended the Annual SDSB Retreat at the Defence Raya Golf & Country Club. The annual retreat is a highly interactive get-together that varies from year to year, generally including strategic thinking exercises and offering an informal and relaxed space to reflect on and revitalise the School's mission and vision.

Welcome to the SDSB Family

A warm welcome to Dr. Ghulam Ali Arain (Associate Professor), Dr. Syed Kumail Rizvi (Associate Professor), Mr. Aman Abid (Visiting Assistant Professor), Mr. Ali Qamar (Executive in Residence MS Accounting & Analytics), and Mr. Samir Ahmed (Executive in Residence, MS Financial Management). SDSB faculty and staff play a vital role in promoting and maintaining the School's academic mission.



SDSB Conversations with Changemakers



The post-pandemic response by the higher education sector capitalises on creativity, engagement, inclusiveness, and conversation to capture the emerging spirit which will shape the world for generations to come. As part of its efforts to connect students and the public with trailblazers making their mark in business and industry, SDSB launched the Conversations with Changemakers series. Hosted by Honorary Dean Dr. Alnoor Bhimani, each episode featured an interesting and insightful conversation with an inspirational individual. This year, the series featured Mr. Sultan Ali Allana (Chairman HBL), Ms. Olivia Campbell (Deputy Director Trade, British High Commission), Mr. Julien Harneis (UN Resident Coordinator & Humanitarian Coordinator in Pakistan), and Ms. Teresa Daban Sanchez & Ms. Ester Perez Ruiz (Outgoing & Incoming Resident Representatives – IMF, respectively).



SDSB Luminites Reunion 2021 & Scholarship

On December 18, 2021, the SDSB Luminites Association organised their annual reunion at LUMS. The luncheon was the first in-person reunion for SDSB alumni in almost two years since the onset of the pandemic. With a turnout of 300 plus alumni, the event was well attended by members of the LUMS leadership, faculty, and staff. The reunion commenced with welcome notes from the President of the SDSB Luminites Association, Mr. Saad M. Khan (MBA 2006), Vice President, Mr. Suneel S. Munj (MBA 2005) and General Secretary, Mr. Hassan Khan Sherwani (EMBA 2016). On behalf of the entire Association, Mr. Shahzad Saleem (MBA 1989) announced the establishment of a new fund of PKR 50 million, which will operate in perpetuity as an opportunity for interest-free loans for deserving students. This fund will be supported and raised entirely by SDSB alumni in the next five years.

LUMS Vice Chancellor awarded the AIB International Educator of the Year 2022

Congratulations to our Vice Chancellor Dr. Arshad Ahmad for being chosen as the International Educator of the Year 2022 by the Academy of International Business (AIB) for his achievements and impact in higher education. Dr. Ahmad is the first recipient from a South Asian university to receive this award and joins eminent colleagues from Europe, North and South America, Australia, and China who have previously received this distinction. AIB is the premier global organisation of international business and management scholars. Established in 1959, AIB's membership spans more than 70 countries worldwide. AIB fosters excellence in education in by advancing the highest professional standards in international business and management.



PhD Management Collaboration with HBL

In October 2021, HBL and SDSB finalised a collaboration on their PhD programme and its finance stream. HBL will support leading edge scholarly and applied research in SDSB on real world problems in global, regional and local finance, and its social and economic impact. We expect the collaboration between SDSB faculty, PhD students and HBL executives to lead to new and exciting synergies.

Valuable Contribution to X Culture by Dr. Salma Zaman

The X-Culture project is a large-scale experiential learning exercise designed to provide students with an opportunity to gain first-hand experience in international virtual collaboration. A

total of 5,140 students from 150 universities in 78 countries on six continents participated in the project. They worked in 1028 global virtual teams, each team comprised about 6 team members, each team member in a different country. Of those, 45 students from LUMS took the International Business course. The X-Culture team recognised the contribution of SDSB faculty member, Dr. Salma Zaman as an "innovative and inspiring educator... (who) showed interest in the research side of the project and had been actively helping with data collection and contributed otherwise to our research efforts."





SDSB-LUMS Collaborates with Leading Healthcare Organisations in Pakistan for MS HMI Programme

SDSB's MS Healthcare Management and Innovation (HMI) programme impacts the practice of healthcare management by creating leaders, innovators, and managers for the healthcare industry. In July and August 2021, SDSB-LUMS signed MOUs and announced new collaborations with a number of prominent healthcare organisations: Bahria International Hospital, Contech International, Evercare Hospital, Shalamar Hospital, Shaikat Khanum Memorial Hospital and Research Centre (SKMH&RC), and Shifa International Hospital. These partnerships will provide placement and internship opportunities to students pursuing the MS HMI degree at SDSB.

HEC NBEAC Accreditation Visit to SDSB

The HEC's National Business Education Accreditation Council (NBEAC) completed a three-day visit to Suleman Dawood School of Business. Individual and team meetings were held with faculty members and staff to evaluate programmes, curricula, co-curricular activities, and operational aspects of the business school. The team acknowledged the high standards of pedagogy and research established at SDSB. The visit concluded with a tour of LUMS campus.



Executive MBA 2023 Welcome Dinner

EMBA 2021 and 2022 welcomed the Executive MBA Class of 2023 with a fun-filled welcome dinner in December 2021. The evening kicked off with remarks by Rector LUMS, Mr. Shahid Hussain; Honorary Dean SDSB, Dr. Alnoor Bhimani, and SDSB Faculty & EMBA Programme Director, Dr. Shakeel Sadiq Jajja. The highlights of the evening included an energetic music performance, a witty news bulletin, and an audience game.

MBA 2023 Welcome Dinner

In November 2021, the MBA Class of 2023 was welcomed by their seniors at a cordial welcome dinner, filled with entertainment and icebreaking activities among students, faculty and staff. The evening included musical performances and other entertaining segments presented by students.



2021 Christmas Soiree for LUMS Community

In December 2021, SDSB and Centre for Business & Society (CBS) organised a Christmas concert to celebrate the holiday spirit. The concert was attended by Honorary Dean SDSB, members of faculty and staff, representatives from civil society, and young students from The Salvation Army. The event began with a brief speech by the Honorary Dean, Dr. Alnoor Bhimani, who lauded the spirit of LUMS that celebrated inclusivity and prioritised high standards of education to build a better society. This was followed by a musical performance by in-house musicians from LUMS staff. The Chief of the Salvation Army concluded the evening by sharing his thoughts on peace, harmony and inclusiveness in society.

Total Parco CEO meets with SDSB Students

Experiential learning is a core component of our graduate programmes, allowing students to gain firsthand insights into the decision-making made by national and international business leaders. In November 2021, we were pleased to host Mr. Mehmet Celepoglu, CEO Total Parco Pakistan for an interactive session on "Leadership in times of crisis: Turning challenges into opportunities". The event was attended by SDSB graduate students, Rector LUMS, Mr. Shahid Hussain, Vice Chancellor of LUMS, Dr. Arshad Ahmad, SDSB Faculty, and top officials from Total Parco. The session was followed by an engaging Q&A.



Digital Transformation and Economic Growth – A Consultative Session with Mr. Makhdoom Hashim Jawan Bakht

On May 28, 2021, Finance Minister for Punjab, Mr. Makhdoom Hashim Jawan Bakht chaired a virtual consultative session on "Digital Transformation and Economic Growth". The session was attended by tech entrepreneurs, industry experts, and academics from SDSB-LUMS. The agenda included opportunities for expanding the role of technology companies in economic growth; promoting the tech economy; and establishing mechanisms for effective collaboration between tech-based businesses and the government. Mr. Bakht remarked that, "Adopting technology is essential to maintain growth in Punjab and beyond. Offering unicorns and startups a robust framework for development, and streamlining regulatory hurdles is a priority for the government". The participants also discussed the adoption of technology by SME enterprises in Punjab.



A Conversation with Chairman, HBL

Mr. Sultan Ali Allana, Chairman, HBL visited SDSB-LUMS to engage with the LUMS leadership, faculty and students. Following a discussion that included the Founding Pro Chancellor, Mr. Syed Babar Ali, Rector, Mr. Shahid Hussain, Management Committee member, Mr. Faisal Dawood, Honorary Dean SDSB, Dr. Alnoor Bhimani and other senior members of SDSB, Mr. Allana participated in an episode of A Conversation with Changemakers hosted by Dr. Alnoor. This event was attended by the LUMS Vice Chancellor, Dr. Arshad Ahmad along with students from different programmes across SDSB. Mr. Allana talked about the HBL journey, its initiatives on digitisation and technology,



as well as development finance and thought leadership. The students enjoyed an interactive Q&A session with Mr. Allana.

Rural Realities: A Talk by Aysha Baqir (MBA' 98)

Author, development consultant and SDSB alumna Ms. Aysha Baqir (MBA '98) led a guest speaker session on "Rural Realities" for the LUMS community in December 2021. Ms. Baqir's talk and presentation highlighted interesting facets of market development and economic empowerment initiatives in rural Pakistan. She talked about her journey into economic development, different approaches to sustainable grass roots development, and value chain model and pathways. She also told us about her book Beyond the Fields published by Marshall Cavendish (globally) and Lightstone Publishers (locally).



Pink Tea Party 2021

On October 22, 2021, SDSB hosted a Pink Tea Party and a Breast Cancer Awareness Session organised by LUMS Community Service Society (Children's Hospital) in collaboration with Shaukat Khanum Memorial Hospital (SKMH) for LUMS staff. The event featured presentations and awareness talks by Dr. Sadaf Ishaque (Shalamar Medical and Dental College) and Dr. Sehrish Fatima (Shaukat Khanum Memorial Hospital).



SDSB at a Glance



QS Global MBA
Rankings 2022
201-250

QS Global MBA
Ranking in Asia 2022
34

QS Global EMBA
Rankings 2021
131-140

QS Global EMBA Ranking
in Asia-Pacific 2021
16

QS World University Rankings in
Business & Management Studies 2021
151-200

QS World University Rankings in
Accounting & Finance 2021
201-250

HIGHLIGHTS

800+

Case Studies indigenously developed based on local industry challenges and trends

More Than 85%

of SDSB's faculty members have earned their PhD degrees from the world's leading academic institutions

ACCREDITATION



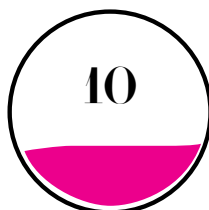
SDSB is Pakistan's first and the only business school to achieve AACSB International accreditation which is earned by around 5% of the business schools worldwide.



SDSB is a Harvard Business Publishing Content Partner



International student exchange programmes with leading global institutions

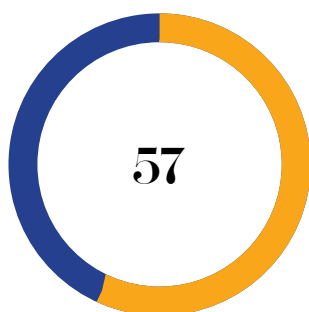


Centres at LUMS providing support for excellence in teaching and research

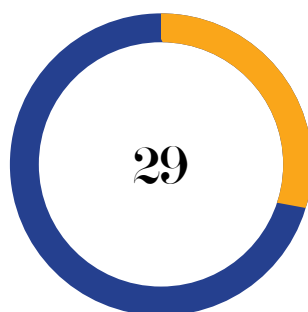


Scholarships awarded to all women admitted to MBA, EMBA and MS programmes

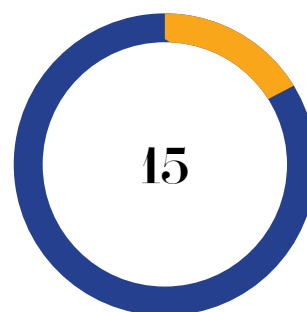
FACULTY RESEARCH RESEARCH AND SCHOLARSHIP OUPUT 2021



Journal Articles Published



A*/A Journal Articles Published



Cases and Notes Published

DEGREES OFFERED AT SDSB

Bachelor of Science (BSc Honours)

Specialisations :
Accounting & Finance | Management Science

Master of Business Administration (MBA)

Executive Master of Business Administration (EMBA)

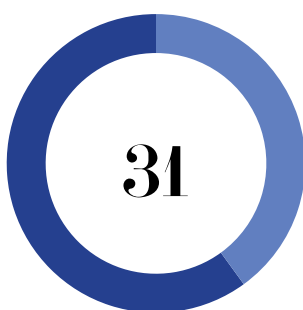
Master of Science (MS)

Specialisations :
Accounting and Analytics
Business and Public Policy
Financial Management
Healthcare Management and Innovation
Supply Chain and Retail Management
Technology Management and Entrepreneurship

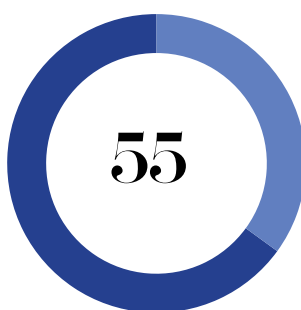
PhD Management

Specialisations :
Finance
Operations Management (OM)
Organisational Behaviour & Strategy (OB&S)

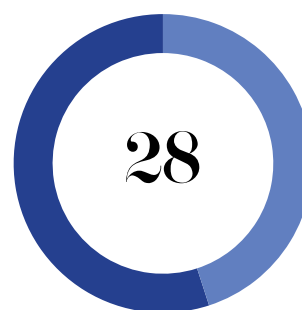
PUBLICATIONS AUTHORED BY PhD STUDENTS



articles published in A*/A ranked international journals (According to the Australian Business Dean's Council (ABDC) journal rankings) till date



articles published in international journals till date



papers presented at international conferences till date

THE PEOPLE OF SDSB FACULTY

Dr. Khawaja Zain ul Abdin

Assistant Professor
Director, Rausing Executive
Development Centre

Mr. Aman Abid

Visiting Assistant Professor

Mr. Syed Zain ul Abidin

Teaching Fellow

Dr. Ferhana Ahmad

Assistant Professor

Dr. Muhammad Ghufuran Ahmad

Associate Professor

Mr. Samir Ahmed

Executive in Residence

Mr. Asad A. Alam

Associate Professor

Dr. Faiza Ali

Associate Professor

Dr. Khudejah Iqbal Ali

Assistant Professor

Dr. Syed Mubashir Ali

Associate Professor

Mr. Waqar Ali

Teaching Fellow

Dr. Ghulam Ali Arain

Associate Professor

Dr. Muhammad Junaid Ashraf

Associate Professor

Mr. Muhammad Asim

Teaching Fellow

Mr. Muhammad Luqman Awan

Teaching Fellow

Dr. Saad Azmat

Associate Professor
Director, Office of Research, LUMS

Dr. Mohsin Bashir

Associate Professor

Ms. Ayesha Bhatti

Assistant Professor

Dr. Alnoor Bhimani

Professor & Honorary Dean

Dr. Arif Nazir Butt

Professor

Dr. Muhammad Imran Chaudhry

Assistant Professor

Ms. Atifa Arif Dar

Assistant Professor

Dr. Anjum Fayyaz

Assistant Professor
Director, MS Business & Public Policy

Dr. Ehsan ul Haque

Professor Emeritus

Dr. Omair Haroon

Assistant Professor
Director, MS Accounting & Analytics

Dr. Syed Zahoor Hassan

Professor Emeritus

Ms. Shezeen Salim Hemani

Teaching Fellow

Ms. Mahira Ilyas

Teaching Fellow
Director, Undergraduate Programmes

Dr. Muhammad Shakeel Sadiq Jajja

Associate Professor
Director, Executive MBA
Director, MS Supply Chain & Retail
Management

Dr. Raja Usman Khalid

Assistant Professor

Dr. Jamshed Hasan Khan

Professor Emeritus

Mr. Kashif Khan

Executive in Residence

Dr. Salman Khan

Assistant Professor

Dr. Anwar Khurshid

Professor Emeritus

Mr. S. Badar Khushnood

Executive in Residence

Mr. Razi Allah Lone

Teaching Fellow

Dr. M. Abdur Rahman Malik

Associate Professor

Dr. Ayesha Masood

Assistant Professor

Dr. Ummad Mazhar

Assistant Professor

Dr. Zainab Mehmood

Visiting Assistant Professor

Dr. Bushra Naqvi

Associate Professor

Dr. Muhammad Azfar Nisar

Associate Professor

Mr. Ali Qamar

Executive in Residence

Dr. Muhammad Ahsan Rana

Associate Professor of Practice

Dr. Hassan Rauf

Visiting Assistant Professor
Director, MS Healthcare Management
& Innovation

Dr. Fahd Rehman

Assistant Professor

Dr. Zainab Riaz

Associate Professor
Associate Dean, Research &
Scholarship

Dr. Kumail A. Rizvi

Associate Professor
Director, Accreditation
Director, MS Financial Management

Dr. Syed Aun Raza Rizvi

Associate Professor
Associate Dean, Academics

Ms. Sarah Pervez

Teaching Fellow
Director, MS Technology Management
& Entrepreneurship

Dr. Fazal Jawad Seyyed

Visiting Faculty

Dr. Muhammad Shafique

Assistant Professor

Dr. Muhammad Shehryar Shahid

Associate Professor

Dr. Choudhry Tanveer Shehzad

Associate Professor
Director, MBA Programme

Dr. Jawad Syed

Professor

Dr. Muhammad Tayyab

Assistant Professor

Mr. Ahsan Umar

Executive in Residence

Dr. Zehra Waheed

Assistant Professor
Director, Centre for Business and
Society, LUMS

Dr. Ussama Yaqub

Assistant Professor

Dr. Sameen Zafar

Assistant Professor

Dr. Muhammad Adeel Zaffar

Associate Professor
Associate Dean, External Relations

Dr. Adnan Zahid

Assistant Professor
Dean, Office of Student Affairs, LUMS

Dr. Salma Zaman

Assistant Professor

Dr. Ghazal Mir Zulfikar

Associate Professor
Director, PhD Programme



THE PEOPLE OF SDSB PROFESSIONAL SERVICES

ACCREDITATION & QUALITY ENHANCEMENT

Mr. Muhammad Saad Saeed
Deputy Manager

Ms. Shiza Shahzad
Senior Officer

SDSB STUDENT ADVISEMENT

Ms. Manhal Fakher
Academic Advisor

Ms. Mubeen Fatima
Academic Advisor

Ms. Fatima Khalid
Academic Advisor

ASSOCIATE DEAN ACADEMICS' OFFICE

Mr. Muhammad Umer Brar
Deputy Manager

COMMUNICATIONS

Ms. Ayesha Khan
Senior Manager

Mr. Shafqat Hayat Bhatti
Assistant Manager

Ms. Safia Aftab
Editor

Mr. Muslim Iqbal
Senior Officer

DEAN'S OFFICE

Ms. Sualeha Hussain
Manager

Ms. Sheher Bano Mela
Senior Coordinator

GENERAL ADMINISTRATION & SERVICES

Mr. Riaz Ahmad
Senior Classroom Staff

Mr. Ghulam Hassan
Senior Classroom Staff

Mr. Munawar Rehman Ali
Classroom Staff

Mr. Muhammad Bilal
Classroom Staff

Mr. Zahid Hussain
Senior Office Attendant

Mr. Tariq Mahmood
Senior Office Attendant

Mr. Tariq Habib
Office Assistant

Mr. Amjad Khan
Office Attendant

Mr. Muhammad Mumtaz
Office Attendant

OPERATIONS OFFICE

Mr. Khalid Mahmood
Manager Operations

Mr. Azeem Ullah Abbas
Assistant Manager Operations

Mr. Kashif Saeed
Senior Officer

Ms. Nabeela Shahzadi
Senior Officer

Ms. Tauseef Zahra Alvi
Officer

Mr. Abdul Basit
Officer

Mr. Muhammad Rehman Siddique
Officer

Mr. Malik Imran Abbas
Senior Administrative Assistant

Ms. Bushra Kanwal
Senior Administrative Assistant

Ms. Hafsa Wajid Lodhi
Administrative Assistant

Ms. Sharha Mumtaz
Administrative Assistant

Mr. Faisal Hameed Bhatti
Administrative Assistant

Ms. Saba Yaqub
Administrative Assistant

Mr. Wajahat Fazal Qureshi
Administrative Assistant

Ms. Ayesha Azam
Academic Support Officer

Ms. Syeda Maria Bukhari
Academic Support Officer

Mr. Adnan Hassan
Academic Support Officer

Ms. Hira Imran
Academic Support Officer

Ms. Sidra Khalid
Academic Support Officer

Ms. Fatima Nadeem
Academic Support Officer

Ms. Nadia Nazar
Academic Support Officer

Mr. Muhammad Talha Subhani
Academic Support Officer

PROGRAMME COORDINATION OFFICES

Executive MBA

Mr. Muhammad Khurram Shahzad
Janjua
Assistant Manager

MBA Programme

Mr. Azhar Rashid Abbasi
Assistant Manager

Ms. Sumbal Farooq
Senior Officer

Ms. Quratulain Haider
Senior Officer

MS Programmes

Ms. Arfa Hamad
Senior Officer

Mr. Syed Ali Raza Hassan
Senior Officer

PhD Programme

Mr. Umar Amjad
Assistant Manager

Undergraduate Programmes

Mr. Bilal Hassan Alvi
Officer

Mr. Muhammad Razi
Officer

SDSB PLACEMENT OFFICE

Ms. Faaria Rehman
Director

Ms. Anique Jamil
Assistant Manager

Ms. Mahwish Khalil
Senior Officer

RESEARCH UNIT

Mr. Shoaib Masud Khan
Assistant Manager