

Annual Directory 2018

ENTREPRENEURIAL LEADERSHIP

MAKING INNOVATION HAPPEN

The stories of

10 Entrepreneurial Leaders
who impact through their
innovative ideas and models

Rahmat Ullah
Dr. Rashida R Zohra

A digital publication by
Satha
South Asian Triple Helix Association



About the Edition

This is the first edition 2018 of an annual directory of entrepreneurial scientists of Pakistan. This edition presents 10 academic scientists of Pakistan who contributed to the society and industry. The collection only means the sampled scientists in our study. There is a number of good scientists with great impact, we could not reach out to them yet. Our limitation also includes our interviews and survey about the life of these selected scientists. We have conducted detailed interviews of the scientists, peers, associates, beneficiaries and the people worked or lived with these scientists. Most of the scientists are under the observation of our study for the last 2-3 years.

The criterion of inclusion is an academic person having proven impact in the society other than the academic role of teaching, research, publication and administration. Society means any type of business, social venture, development activity, and interventions have improved the lives of people. The magnitude of impact and scope is very broad and multidimensional.

Our journey of study on entrepreneurial scientists started back in 2013 in response to a question that can scientists play the dual role of serving academia and society. The collection of case studies of good number scientists for the purpose of a book gave birth to the idea of annual directory.

Now, the project is a regular and continuous study of these scientists. The directory will be published annually along with their video documentaries. The scientists can share their academic and non-academic impact with rafia@irp.edu.pk for review and inclusion.

Authors are highly thankful to Mr Abid H K Shirwani, DG, UMT/President SATHA, and Mr Wajeeh Uddin, Chancellor, Jinnah University for Women, for their kind support for the authors.

Rahmat Ullah

Dr Rashida R Zohra



President's Message



I am pleased to see the new success made by IRP and partner institutions for documenting innovative leaders of Pakistan. Last year, we presented our annual directory of entrepreneurial scientists, which was a great service to the academic community of Pakistan. Now we present another edition on entrepreneurial leadership of Pakistan who innovates, builds and sustains. This leadership is a great blessing for this country, as they dream and turn their dreams into reality. They are role models of hope and pride in our society, especially for the young generation.

We do hope that their stories will inspire many young leaders to follow the path of entrepreneurial leadership.

Abid H K Shirwani

DG, UMT/CEO, IRP/President, SATHA

Acknowledgement

The authors are highly thankful to the University of Management and Technology and the Jinnah University for Women for their extended support.

Dedication

To our friends who make the government responsible for their inability to take great initiatives.

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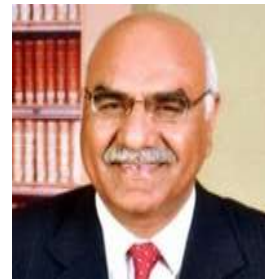
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Introduction

The directory includes 10 cases of entrepreneurial leaders of Pakistan. This is the first edition of 2018. The directory is based on regular research of Entrepreneurial Science Project (ESP) by Rahmat Ullah and Dr Rashida R Zohra. The directory will be published digitally by South Asia Triple Helix Association on annual basis.

The directory of entrepreneurial leaders will inspire many young innovators to have great careers and build great organizations.

The authors are thankful to Abid H K Shirwani, Director General, University of Management and Technology and Wajeehudin Ahmed, Chancellor, Jinnah University for Women, Karachi, for their continuous support.

Case Studies of Entrepreneurial Leaders of Pakistan

Case No. 1: Prof. Dr Manzoor Hussain Soomro: The Popularization of Inquiry-Based Science, Education (IBSE) Technology and University-Industry Collaboration

Personal Information

- **Name:** Prof. Dr Manzoor Hussain Soomro
- **Position:** President
- **Organization:** ECO Science Foundation (ECOSF)
- **Public Sector**



The Innovative Approach

PhDs (degree holders) in science mostly spend their life in teaching and research while aspiring to reach positions of vice chancellors. Prof Dr Manzoor H Soomro spent his life in contributing extensively for S&T promotion, inquiry based science and collaborations among scientific disciplines.

He dedicated his life to science popularization and commercialization with a particular focus on inculcating scientific thinking among school students.

He contributed in these areas, not only in Pakistan but also in other countries.

The Pre-Entrepreneurial Era

Dr Manzoor H Soomro was born to a middle-class family which lived in a village near Khairpur, Sindh. He was something of a prodigy, securing many positions and medals in his academic career. As a dedicated researcher, he has the credit of diagnosing two diseases known as, Banana Bunchy Top Virus (BBTV) and Powdery Scab of Potato in Pakistan.

Despite an exceptionally bright academic career, nobody knew much about Dr Manzoor as a brilliant scientist, who made science easy and accessible to thousands of talented young minds.

He earned his doctorate in agriculture from the University of Reading, UK. His experience of working in the UK encouraged him to maintain a career in science management, instead of teaching science. In the beginning, he joined Sindh Agriculture University, Tandojam, as Professor but soon left for science management in Islamabad.

Choosing a less trodden and difficult path over a smooth career made him a historic entrepreneurial leader of science in Pakistan. Many of his friends hold the view, *“Dr Manzoor has the natural talent to lead in science. He loves to explore new ventures and interventions to promote the culture of science in Pakistan.”*

The Start of an Entrepreneurial Journey

Dr Manzoor started working in Pakistan Science Foundation (PSF) where he got an opportunity to plan and initiate many new programs. Soon, he got a chance to serve an international scientific organization and took a short leave from his job. This was a turning point of his life and his entrepreneurial talent, as well as his leadership qualities, were refined.

His national experience in PSF is now combined with practical experience of working with an international team of scientists in the agriculture field. He joined FAO for policy-related analysis in pesticide sector and implementation of integrated pest management. He has some discoveries on his credit but here he learned the people and community perspective of science and developed passion in it.

He joined PSF back in 2004 and started working on the grounds yet untouched. Unlike other scientific officers, he used to spend extra time thinking and planning for something new. He used to interact with the outside community to see how science can serve them. He used to listen and understand the social side of the science.

He also used to interact with civil services officers and politicians to read their mindset and help them understand the importance of science in society. In his part of the world (Pakistan), stakeholders mostly complain of inadequate interaction and understanding of each other. The society, the scientific community and government persons all have doubt, complain and trust deficit which hinders their friendly interaction.

The destiny blessed Dr Manzoor with triple helix mindset. He was free of perception ills and people from all trades of life enjoy the interaction with him. This made Dr Manzoor an entrepreneurial leader who innovated many useful interventions and made a lasting impact.

The Demonstration of Entrepreneurial Leadership - Science Popularization

During our four-year association with Dr Manzoor, we observed that he was a man of vision, who encouraged people to think and contribute to science. He talked about science popularization extensively and commented in one of our programs, *“Dear all, I am in my 60s and you cannot change me. I encourage schools, teachers and students to think scientifically. Start developing innovators from the school level through inquiry-based science.”*

He initiated inquiry-based science project in collaboration with the French government. Under this project, the stakeholders including teachers and students were trained across Pakistan on how to learn science practically, 'by doing it and by understanding it.' For this purpose, science popularization centres were set up in big cities. The Mobile Science Expo was a unique feature of this project, which made students of remote areas aware of science in real life. These vans were equipped with scientific tools and gadgets to help students learn science in a fun manner. So far this has been the most successful project of Pakistan Science Foundation (PSF) for science popularization.

Dr Manzoor H Soomro is internationally known for advocating inquiry-based science education and science popularization program.

The Demonstration of Entrepreneurial Leadership - Natural Sciences Linkage Program- NSLP

The NSLP Program was signed between USA and Pakistan for 500 million (PKR) to support agriculture research. Dr Manzoor was the Chief Scientific Officer, responsible for implementing and executing this program. The endowment fund was created and projects were supported from the earnings. This is one of the most successful funding projects in Pakistan. 100s of research projects are funded and executed by the scientists of universities and R&D organizations.

Dr Manzoor introduced a workshop to train academic scientists on how to write projects for PSF. This was a very innovative workshop, where projects reviewers and members of technical committee trained people themselves to win funds.

The Demonstration of Entrepreneurial Leadership - UIP Program

Dr Manzoor believed in the utility of science for the good of the common people. He was DG PASTIC National Center when he initiated University-Industry Partnership Program with the Institute of Research Promotion. This was the first of its kind public-private partnership to promote university-industry collaborations.

The partnership was institutionalized by MoU signed by Dr Manzoor H Soomro DG PSF-PASTIC National Center and Abid Shirwani from Institute of Research Promotion (IRP). He appointed Dr Saima Tanveer as focal person to build the capacity of regional PASTIC offices to run UIP Program. This program was later on carried by his successor Dr Akram Shaikh also.

Dr Manzoor was truly an entrepreneurial science leader and supported UIP Program greatly. He used to travel extensively, capitalized on a lot of references and took great pains to make this programs successful. Under the UIP Program by PASTIC and IRP, symposiums and exhibitions were arranged in various chambers of commerce and industries. Almost all the major cities were covered under this program. The innovative projects from academia were invited for display in the premises of Chamber of Commerce and Industries. Industrial representatives were invited to view these academic projects and select the relevant and potential ones that matched their needs. Many symposiums were organized by PASTIC, IRP and respective chamber of commerce and industries. This program created a high impact in Pakistan in three areas *(1) identification of potential industry problems (2) identification of potentially relevant scientists and (3) introduction and awareness of academia-industry potential areas of collaboration.*

The trust deficit of industry was reduced significantly through continuous interaction and sharing of their problems with academia. Academia also got a platform to interact and learn about the industry problems.

The Demonstration of Entrepreneurial Leadership - Industry Linkages Program

The industry linkages program was established in PSF. Dr Manzoor after joining as Chairman PSF decided to strengthen this program and started innovative initiatives.

Dr Manzoor brought Dr Mirza Habib, a highly competent person for science impact as Program Head. The idea to start an Innovation Summit for this program was conceived during this time, under this program. Later, the idea was presented by CEO, IRP in a common meeting with Dr Manzoor Soomro, Chairman, PSF and Dr Mujahid Kamran as VC, University of the Punjab at VC Office in Punjab University. The concept was appreciated and ensured full support of these institutions. In this regard, the first Innovation Summit was organized by Punjab University in June 2012. To date, 15 innovation summits have been organized in four provinces of Pakistan. This Summit has become the largest R&D networking platform for Pakistan. 1000s of students, scientists and industrialists, funding agencies, government officials, politicians and other stakeholders interact with each other through technology sessions and innovation expo.

The Innovation Summit is indebted to the support of entrepreneurial leader Dr Manzoor Soomro. The successor chairmen continued their support and collaboration under the leadership of Dr Mirza Habib.

The Demonstration of Entrepreneurial Leadership - (ECOSF)

Dr Manzoor, as Chairman PSF, understood the value of science in the international context. He signed a number of MoUs with international agencies during his chairmanship.

He also developed very positive collaborations with partners and stakeholders. This made him the best candidate to lead an inter-government organization called ECO SCIENCE FOUNDATION (ECOSF). He was elected President, ECOSF, twice, who launched a number of programs and interventions to promote scientific culture in these 10 ECO countries. There is a high impact of this program on these countries as a scientific community including minister level officials interacted with each other, shared resources and developed extreme positive working relations. This has led to many joint projects among ECO countries.

We are thankful to Dr Manzoor Soomro for making Pakistan proud for leading ECOSF. He is also a part of International Board of Science, Technology and Innovation (STI) under UNESCO- International Science, Technology and Innovation Centre (ISTIC) and Global Council of Science Education Program (SEP) of the Inter-Academy Panel (IAP).

The Summary

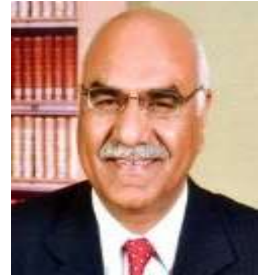
Dr Manzoor Soomro is an entrepreneurial leader of science, who made many innovations after doing his own inventions too. In Pakistan, his impact on science popularization and R&D collaborations will always be remembered. Pakistan has 12000 plus scientists; half of them are foreign qualified but not even 12 to manage science. He is a great role model for those who like to manage, promote and apply science. The French Government awarded him with '*ORDER OF ACADEMIC PALMS*' and appointed him as '*OFFICER*'.

He also serves on the board of 13 National Centers of Excellence in Pakistan. He is a great science leader and scientist, having six industrial patents, nine gene sequences, science documentaries and more than 100 publications including papers and books to his credit.

Case No. 2: Dr Muhammad Amjad Saqib: Innovative Social Entrepreneurship to Improve the Living of Less Privileged Communities

Personal Information

- **Name:** Dr Muhammad Amjad Saqib
- **Position:** Founder/Chairman
- **Organization:** Akhuwat
- **Social Sector**



The Innovative Approach

Dr. Muhammad Amjad Saqib, founder of the world's largest interest-free microfinance program - Akhuwat, is a development practitioner, philanthropist, writer and a former civil servant.

He conceptualized a globally validated interest-free model of microfinance almost two decades ago, which challenges all rules of conventional finance, and works for financial inclusion of the marginalized. Akhuwat has served more than three million poor families and has now expanded operations to other social welfare areas including education and health.

Because of his remarkable achievements in restoring human dignity to Pakistan's most vulnerable communities, including poor women and transgender, through financial aid, education, health care, and the distribution of food and clothes, Dr. Saqib has received world-wide recognition, including most recently the Islamic Economy Award, 2018 by Thomson Reuters & H.H Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum (Crown Prince of Dubai), Social Entrepreneur of the Year Award 2018 by Schwab Foundation and World Economic Forum, Commonwealth's 31st Point of Light award by Her Majesty Queen Elizabeth II, and The Islamic Economics Award for Year 2018 during 6th Islamic Economics Summit in Turkey. In recognition of his meritorious services, the President of Pakistan honored him with Sitara-e-Imtiaz, one of the highest civil awards.

He is the author of seven books and an acclaimed speaker. He has represented Pakistan at different fora and has spoken at the United Nations, Harvard, Oxford and Cambridge University.

Dr. Muhammad Amjad Saqib, founder of the world's largest interest-free microfinance program - Akhuwat, is a development practitioner, philanthropist, writer and a former civil servant. In recognition of his meritorious services, the President of Pakistan honored him with Sitara-e-Imtiaz, one of the highest civil awards.

The Pre-Entrepreneurial Era

Dr. Amjad Saqib is an icon of poverty alleviation and socio-economic justice in Pakistan. He is a visionary who conceived of an indigenous strategy to harness people's potential to help them create their own pathways out of poverty. Following the exemplary model of compassion and equity set by the Prophet Muhammad (P.B.U.H), he founded Akhuwat, which now stands as the world's largest interest-free Microfinance Institution.

Akhuwat is working towards the social inclusion of the marginalized and disadvantaged through provision of effective and sustainable solutions such as interest-free microfinance, fee-free quality education, and subsidized health services. Through these welfare interventions, Dr Saqib has helped millions of people to escape the clutches of poverty. With the launch of the Akhuwat University-College in 2018, he has achieved yet another milestone. As a no-fee university, it is based on the premise that if microcredit can be provided without charging interest, education should be provided to the marginalized without fee.

The Start of an Entrepreneurial Journey

Dr Amjad Saqib was born to a middle class family. He did his MBBS from King Edward Medical College, Lahore in 1982 and Bachelors from University of Punjab, Lahore in 1984. Dr Amjad received Hubert H. Humphrey Fellowship in Public Administration in 1994 and completed his Masters in Public Administration (MPA) from School of International Studies, the American University Washington, D.C. USA (1995).

He joined the District Management Group (DMG), the most prestigious cadre of the Civil Services of Pakistan in 1985 and served at senior positions in the Government of the Punjab including as the General Manager of the Punjab Rural Support Program (PRSP). He founded Akhuwat with the help few other friends in 2001. He resigned from Civil Services in 2003 while at the highest echelons of service in quest of a more impactful life.

The Demonstration of Entrepreneurial Leadership - The dawn of Akhuwat

Dr. Amjad Saqib's entrepreneurial journey began in 2001 through his interaction with an elderly woman who asked for financial help. He proceeded by providing the woman with a loan of Rs. 10,000. After a few months, this woman returned and to his surprise, the woman not only paid back the amount she had borrowed, she also remarked "with this money, you can help others like me". This woman's act echoed the spirit of "Mawahkhat" and left a deep impact on Dr. Saqib.

"Mawahkhat" refers to the spirit of solidarity developed between the residents of Madina and immigrants from Mecca by Prophet Muhammad (PBUH). The incident with the elderly woman eventually led to replicating the same model of providing-interest free loans to the poorest of the poor under the banner of Akhuwat the same year. Akhuwat aims to alleviate poverty and create a bond of solidarity between the prosperous and the underprivileged by providing interest-free loans.

Those who borrow are encouraged to donate as they become economically sufficient, although this is not compulsory. The loans are given without any discrimination on the basis of caste, color, creed, political affiliation or faith.

Akhuwat was created on the model of brotherhood practiced by Prophet Muhammad (PBUH), when he arrived in Madina after *Hijarat*. The collection and raising of funds, seemed strenuous in the beginning. Dr Amjad's concept of providing interest-free microfinance was highly criticized and challenged by many scholars and economic experts questioning the sustainability of his approach. The collection of funds, loans without an added interest, pay-back rate were all the main reasons that fueled this doubt.

However, the gradual growth of Akhuwat dispelled these notions of uncertainty. Akhuwat grew, expanded and replicated into towns and cities across the country. Akhuwat's mission against high interest rates has now transcended geographic boundaries as it is registered as a company in Uganda and as a Trust in the U.K, USA, Canada and Sweden. Universities around the world, including Harvard University and University of Oxford, have written academic papers and case studies on the Akhuwat model.

Today, Akhuwat has emerged as the world largest interest-free microfinance institution. With his passion and dedication to the cause, Dr. Saqib sets an admirable example for the world to see how one man and his noble intentions can put true Islamic principles into practice and in doing so, help make the world a better place.

The Akhuwat Model and Philosophy:

Despite its expansion to every corner of Pakistan, Akhuwat keeps its operations very simple; physical structure of the foundation is kept modest and economical, most of its functions are performed by a cadre of volunteers, its offices consist only of floor-seating around a wooden table and no refreshments are served. With its simplicity and humility, Akhuwat envisions to set an example and challenge the status quo of the microfinance world.

At Akhuwat, Dr. Amjad has played an imperative role in formulating the organization's doctrines and core values. He founded Akhuwat on the following unique principles:

- Akhuwat will provide loans to families without interest
- Operations of Akhuwat will be conducted through religious centers
- Akhuwat will foster and harness the spirit of volunteerism
- Akhuwat will strive to transform borrowers into donors
- Akhuwat will promote entrepreneurship and business ethics

As Dr. Amjad himself recollects one of the most memorable moments of his life was when he completed distribution of One billion (PKR) among poor families after almost 10 years of operations. His mission gained momentum, when branches of Akhuwat opened countrywide and chapters of Akhuwat were registered overseas as well.

It is interesting to note that the innovative model of Akhuwat is taught in world's major universities. His concept of interest-free microfinance is being replicated by many other organizations in Pakistan and abroad. Millions of poor families are provided financial help to initiate their small businesses and have the right to live an honorable life. Thousands of females have initiated economic activities to earn livelihood to support themselves and their families through Akhuwat's interest-free loans.

To enumerate the impact that Akhwat has on the lives of it's beneficiaries, I would add a story here of a man who was seen crying on the road of Raiwind, Lahore. It was later discovered that person was heavily indebted to a local money lender, from whom he took a loan of Rs. 60,000/- on 200% interest rate annually. He had already paid Rs. 300,000/- of debt but the principle amount remained unpaid. As a result, he lost the capacity to pay more installments and suffered miserably. He was then referred to Akhuwat Liberation Loan services. The organization paid the principle amount at once. Later, the person paid back to Akhuwat through small affordable installments. The man was liberated from the burden of paying back the hefty loan.

This model of poverty alleviation therefore is a unique way to rectify social problems, generate employment opportunities, assuage poverty and improve the quality of lives of the underprivileged.

Initiatives by Akhuwat: Poverty is a multi-dimensional issue, and no single intervention is sufficient on its own to cater to the needs of the poor. Noting this, over the years Dr. Saqib and Akhuwat have developed various support mechanisms to cater to the diverse needs of the poor in Pakistan.

Akhuwat Clothes Bank: To meet immediate clothing needs of the poor on a seasonal basis, the Clothes Bank was set up in 2014. Old and new clothes are collected from the community that are then washed, repaired, packed and distributed among the poor by a team of Transgender people. Over time, the Clothes Bank has expanded to include collection and distribution of toys, books, household items and specialized wedding gifts for women.

Akhuwat Health Services: The Akhuwat Health Services (AHS) serves the poor through affordable, efficient and effective health care. AHS has set up health center in Township, Lahore that houses a Diabetes Center, Gynecology Clinic, Psychiatric Clinic and a General Clinic. AHS also provides subsidized medicine and lab tests and free examination and consultation for low-income families and Akhuwat's borrowers.

Akhuwat Education Services: Akhuwat envisions a Pakistan where access to education is ensured as a fundamental right of every citizen. Through different partnerships, Akhuwat has been working to improve the quality and access to education.

Akhuwat works with the Kiran Schools to train and educate preschool children and their parents in the impoverished neighborhood of Layari in Karachi.

Additionally Akhuwat is managing 400 schools across the Punjab Province with enrolment of 50,000 students. Through the appointment of qualified teachers, improvement of teaching methods, installation of efficient systems, Akhuwat is working to transform these schools into vibrant centers of education. Akhuwat has established residential colleges in Lahore, Chakwal and Faisalabad where students from all over Pakistan are getting quality education free of cost. The aim of the College is not only to provide these young people with quality education, but also focuses on cultivating their unique talents, inspiring a deeper sense of morality and inculcating the values of discipline, hard-work and volunteerism.

Akhuwat University: There are thousands of young people in Pakistan who in spite of their talent have limited access to quality higher education. Building Akhuwat University is the first step to change that. Located at Kasur, Akhuwat University is Pakistan's first non-profit university where students will pay their fees according to their means. The university fulfills Akhuwat's long-term vision of development and prosperity by creating and preparing a new generation of leaders that will transform their communities and country. The University-College (Phase 1) has been functional in Kasur (near Lahore) from August 2018.

Akhuwat Fellowship Program: Akhuwat has taken another challenge of developing creative leaders and moral entrepreneurs. Through the fellowship program, young people are recruited and introduced to the various development challenges facing Pakistan.

The students visit social projects, meet organizational heads, observe deprivation level in the society and understand social aspects of life. They are inspired from grass root level to study challenges and plan solutions to the persisting development issues. At the same time, there is a strong emphasis on inner transformations that must precede any efforts of making meaningful contribution in the external world.

Public-Private Programs in Microfinance: The persistence of poverty and deepening inequalities in Pakistan has compelled institutions to redefine their 'default' roles and explore different modes of operation. The underlying logic of public private partnerships is that the most pressing development issues facing Pakistan should be analyzed and confronted jointly- rather than separately- by governments, public institutions, civil society and community organizations.

After years of refining its model of microfinance and with a decade of success behind it, Akhuwat partnered with both the provincial governments and federal government in Pakistan to ensure that more low-income families are provided access to interest-free microfinance.

The adoption of interest-free finance approach by the state is first of its kind in the world. Through Public Private Partnerships, the outreach of the interest-free microfinance has increased manifold in the country and through the support of provincial and federal government, Akhuwat's development program have expanded to all corners of the country much faster than had it done so alone. This stems from a resolute conviction of Dr. Saqib that the solutions to poverty do not lie in isolation but in partnerships and solidarity.

Work with the Disabled: Along with numerous social services, Dr. Amjad is also involved in an initiative for people with physical and mental disabilities. From small scale projects launched through the Akhuwat Health Services such as providing wheel chairs to poor people to leading major institutions working for the disabled, Dr. Amjad has worked in various capacities for the disabled.

Dr. Amjad heads Punjab Welfare Trust for the Disabled (PWTD) by the Government. PWTD supports numerous non-profit organizations and institutions that specialize in various teaching and rehabilitation services of people with disabilities. He also serves at the Fountain House, a rehabilitation facility for those suffering from serious mental diseases , as member board and organizational head. At the fountain house he interacts with patients, advises doctors, encourages donors and devises plans for its enhanced functioning and future growth.

Khwaja Sira Support Program:

The social and economic exclusion of the Khwajasira (the Third Gender) community has left them dependent on alms and vulnerable to violence and abuse.

The Akhuwat Khwajasira Support Program seeks to reintegrate Khwajasiras into society as equal citizens and supports them through financial assistance, health services, vocational trainings and psychological support. To date, it has around two thousand transgender individuals registered.

Punjab Education Endowment Fund: Those who have resources buy every opportunity at their door steps. The people without resources run after opportunities and lose hope before reaching their goals. It was due to tireless dedication and innovative approaches that Dr. Amjad envisioned, planned and led the Punjab Education Endowment Fund (PEEF) as vice chairman. PEEF is education fund for talented and deserving people. According to PEEF procedures, the list of talented students of rural districts is taken from examination boards and top scorers are given scholarships. The winners need not to apply and compete, nor need to visit the office or to look for references or to bribe the staff to speed up their cases. The evaluation process for selection is extremely fair and transparent and scholarships are given to the deserving ones.

Global Collaborations:

Under the visionary leadership of Dr Amjad Saqib, Akhuwat has become an international organization. He makes his contributions to multiple projects voluntarily. He has given consultancy services to international and national development agencies for planning, management and projects' execution. He has also served International Labour Organization (ILO), United States Agency for International Development (USAID), Canadian International Development Agency (CIDA), Lahore University of Management Sciences (LUMS) and many other well-known organizations at national and international level.

Summary:

Dr. Amjad's life bears testimony to the power of passion, humility and perseverance in transforming the world. Perhaps the first steps were taken by Dr. Amjad, but now Akhuwat has thousands of friends and supporters all over the globe. Collective action disciplined by values and guided by compassion has the ability to transform communities; Akhuwat is a stark reminder of this reality.

Case No. 3: Prof. Dr Atta - Ur - Rehman: Creating a New History in Science, Technology and Education of Pakistan

Personal Information

- **Name:** Prof. Dr Atta - Ur - Rehman (*FRS NI, HI, SI, TI, UNESCO SCIENCE LAUREATE*)
- **Position:** Pattern-in-Chief
- **Organization:** International Center for Chemical and Biological Sciences (ICCBS)
- **Academic Sector**



The Innovative Approach

After A Levels, his father offered him to join the textile business. He nicely excused and requested the permission to pursue an academic career like his grandfather; the vice chancellor of Punjab University.

The man is clear in his mind about what to do and how to do. He carried the same attitude for more than 50 years. What to do can be copied, perceived, or guided by someone. But how to do simply comes from his intrinsic ability of objective evaluation and planning. His how to do planning is free from any kind of personal motives and greed. He accepts or refuses but cannot be motivated to walk in between. This made him the history-making scientist and symbol of pride for generations to come.

The Pre-Entrepreneurial Era

Apparently, Dr Rehman has refused his father to join the business but he has inherited the business aptitude. He is the manifestation of both his grandfather (academically) and father (professionally). He experiments, teaches, read, and writes like a serious academician but he plans, organizes and executes like an insightful and smart businessman.

This combination made Dr. Rehman an entrepreneurial leader who makes innovation happens. His entrepreneurial aptitude can be traced in his mixed education. He opted for O & A levels in his initial studies, followed by graduation and post-graduation from Karachi University in chemistry. He tasted the education system of both worlds so he can theorize and apply the concepts too. His doctoral studies in Cambridge polished his entrepreneurial capabilities and potential to lead the country in scientific entrepreneurship.

The Start of Entrepreneurial Journey - Development of ICCBS

He returned back to Pakistan and joined Karachi University in spite of lucrative offers from all over the world. This signals his true love for scientific development in Pakistan. This was his first demonstration of entrepreneurial leadership. Prof Saleemu Zamaan Siddiqui had already laid the foundation of a postgraduate institute in 1967, which Dr Rehman joined after returning Pakistan. The institute is now known as Husein Ebrahim Jamal Research Institute of Chemistry H.E.J, part of The International Center for Chemical and Biological Sciences (ICCBS). Prof Siddique initiated few other institutions too but HEJ touched the sky in academic excellence. The prime reason was his co-director and then director Dr Rehman. He brought a lot of equipment from Cambridge and attracted many philanthropists and industrialists to support the institution. He did not let these donations go wasted or equipment being unutilized which happens in many institutions of Pakistan. He developed a comprehensive plan to utmost utilize the resources in the best possible way. This won the trust of donors and they kept increasing their support. Secondly, Dr Rehman knows the art of developing team and leadership. HEJ has beautifully set the example of sustainable leadership as currently being led by Prof Dr Iqbal Chaudhry; a very competent scientist too. Dr Rehman also believes in institutional and system based approach; respecting the merit, transparency and accountability. He duly follows the role and makes himself accountable. HEJ has a rule that office of professor will be in laboratory among students. The office of Dr Rehman is also in the lab. He meets people in a meeting room and goes back to the office in the laboratory.

Objective planning, generating resources, building a team and developing systems can be conceptualized as *“Ecosystem*

Makeup". We found Dr Rehman's mastery in Ecosystem Makeup and therefore he was able to deliver efficiently and effectively. Ecosystem makeup means putting all components together with endorsing system for each other's so every part works for each other's and produces total progress for all.

The Pakistan and entire scientific world feels pride in HEJ because of the remarkable Ecosystem which was envisaged by Dr Rehman.

The Demonstration of Entrepreneurial Leadership- S&T Ministry

Dr Rehman ability to give Ecosystem Makeup to his interventions is demonstrated in his next academic and non-academic pursuits. IT and Telecom sector were totally ignored in Pakistan. We used to avoid incoming calls due to roaming charges. See the link below for how ecosystem development by Dr Rehman made it the most advanced and thriving sector within 3-4 years. Now we see cellular phones in every hand.

The IT and Telecom unit is created under S&T ministry headed by Dr Rehman. Later on, it became an independent ministry. Like many others this attempt could have failed if it is not covered from many aspects and dimensions including taxes, duties, incentives, infrastructures, investment security, level playing field, enabling environment and policies to promote usage and consumptions.

Dr Rehman developed a complete ecosystem makeup around IT and telecom sector to get Pakistan out of IT darkness and put it among fast growing ICT countries.

The one component of this ecosystem makeup was the ICT R&D Fund. The TALCOS were asked to share 0.05 of their revenue for R&D in the ICT sector. This made huge funding available for research and innovation contributed by private sector industry. The ICT R&D fund was put under an independent board of governors with 50% representation by contributing private sector. This was an excellent governance model which ensured its sustainability and performance.

There are other few funds in Pakistan taken from industry on the name of R&D. The industry participation is neglected and is found dissatisfied about utilization of their provided funding. The ICT R&D fund is a first successful example of industry funding reaching to academia though better governance.

Dr Rehman was S&T minister but made a great historical contribution in the telecom sector which was a unit of S&T.

“What about rest S&T institutions? Dr Rehman reply was; I have made a plan to revive S&T organizations. I submitted to the government but it was not approved. So I could not intervene in these institutions”.

It is the same clear response which Dr Rehman expressed to his father 40 years back as saying “I would like to have an academic career” He never wanted to stay as a minister nor cherished it. He simply picked up the opportunity where he could make a significant mark. He knows what to do and how to do. This is his ecosystem makeup strategy to make a positive impact.

The Demonstration of Entrepreneurial Leadership - Higher Education Commission

He joined as minister for education and made all necessary arrangements including legislation etc. Then he joined as chairman HEC to put the higher education of country on track just like telecom. The results are very clear and loud. Today we are the nation having universities, labs and a good number of scholars. This was totally ignored area of Pakistan. We do not know a nation have prospered by ignoring higher education and research component. But we ignored it as a nation.

The question is how HEC has performed and delivered?

The answer lies in ecosystem makeup planning of Dr Rehman. He gave a strong and independent legal backup to HEC. In absence of this legal backup, HEC could have lost its sovereignty any time.

What a great vision? The scholars are sent to advanced countries for higher studies. The infrastructures and labs were setups in the country before they arrive back. The salaries were increased and made competitive so scientists could be retained. Research grants schemes were introduced so they could win grants and conduct research. ICT access, access to academic journals, financial support for conferences, incentives for publications and lot more is done as part of ecosystem makeup. These all components have endorsed each other's and produced total progress in the higher education sector. Here is a testimonial

"German academic, Dr Wolfgang Voelter of Tübingen University in Germany overviewed the performance of HEC under the leadership of Prof. Atta-ur-Rahman and described the reforms in HEC as "A miracle happened." After teaching and visiting in 15 universities of Pakistan, Voelter wrote that the "scenario of

education, science and technology in Pakistan has changed dramatically, as never before in the history of the country”

Dr Rehman did objective planning for HEC, generated resources, built a very good team and developed an institutional system to govern the organization. Dr Sohail Naqvi, a very competent academic leader, carried the torch and kept lit for a long time after Dr. Rehman resignation. Dr Rehman resigned when HEC budgets were cut and scholars abroad were forced to beg for their fee. He came for HEC rescue when its existence was questioned. HEC is the effective governance model too as it has kept its momentum of growth and sustainability. Until now HEC has created the strong science and research capacity in Pakistan. Now, this capacity is being turned to the knowledge economy and research capitalization. The road is half travelled and rest journey is ensured in its basic planning.

By looking at HEC we can say “we have good institutions in Pakistan too”

The Summary

Dr Atta Ur Rehman is awarded numerous national and international awards. He is elected as an "Academician" (Foreign member) of Chinese Academy of Sciences. He is President of Network of Academies of Science in Countries of the Organization of Islamic Conference (NASIC).

He published more than 800 research papers, around 250 books, around 70 chapters in books and awarded around 45 international patents. He was elected as Fellow of Royal Society (London) in 2006 and awarded the UNESCO Science Prize (1999).

Most importantly, he has improved the lives of a common man in Pakistan. The history will remember him always as the father of higher education and telecom in Pakistan.

Case No. 4: Dr. Hasan Sohaib Murad: The Legend Lives a Missionary Life and Makes a Lasting Impact

Personal Information

- **Name:** Late. Dr Hassan Sohaib Murad
- **Position:** Rector, Chairman, Founder
- **Organization:** ILM Trust/
University of Management and Technology
- **Academic Sector**



The Innovative Approach

He was an American MBA in the 80s and secured a planning related job in the largest industrial group named Dawood Group. He could have enjoyed excellent employment career for entire life and lived a lavish life.

He resigned and adopted the stage of thrones by setting up the academic institutions. When every young person was struggling hard to ensure a secured future, he left his secured future. He dreamed to train young people as leaders of future who can put this country on the path to progress. Dr Hasan utilized his entrepreneurial leadership and set up many great academic institutes.

The Pre-Entrepreneurial Era

Dr Hasan was born in Karachi and belongs to a scholarly family which is known for engineering and education. His father was an international figure in civil engineering, an educationist and great writer of 100 plus publications. The social orientation presented in the writings of Mr Khurram Murad is clearly reflected in the entrepreneurial personality of his son Dr Hasan Sohaib Murad. The early brought up of Dr Hasan is largely influenced by his father in a number of aspects like scholarly perspective, social aptitude, academic orientation, strong personal character, inspiring nature and long-term vision in life. The first degree of Dr Hasan in civil engineering from NED University was also due to high inspiration from his father. He saw his father designing dams and such high-value projects in Bangladesh, Pakistan and Mecca. The impact of making the entrepreneurial personality of Dr Hasan was painted in his early childhood as he saw his father making a big impact in both professional and scholarly life. His thoughts are also largely influenced by two writers as Mr Khurram Murad and Professor Khursheed Ahmed after Allama Iqbal.

The theory of *“family brought up does influence the childhood”* proves true in the case of Dr Hasan Sohaib Murad. Therefore Allama Iqbal said;

*Ye Faizan-e-Nazar Tha Ya Ke Maktab Ki Karamat Thi
Sikhaye Kis Ne Ismaeel (A.S.) Ko Adaab-e-Farzandi*

He completed his first degree in civil engineering from NED Karachi. This was his first outer world exposure which developed his personality. He was an active student leader, social mobilizer, community activist and an intelligent student.

The early rise of Dr Hasan in 1970s is also critical in framing his personality and worldview. In Pakistan, this age is known for struggling age between right and left schools of thoughts. The age was free of any war, arms and conflict beyond the humanly limit. The people did belong to certain ideologies but limited to scholarly debates and dialogues. Dr Hasan was born to rightist family which was open to ideas and communication. He developed the capability of being rightist and interacts with leftists. He developed the habit of listening more to others' ideas, engaging people in dialogue, having belief in the power of argument and respect to a human having opposite beliefs and ideas.

His training of this period truly reflected after 35 years when he initiated a program of dialogue among the religious scholars. This program is highly appreciated as it provides an enabling environment to the thought leaders of various religions from all over the world to interact and understand each other.

The Start of Entrepreneurial Journey

Dr Hasan with MBA from USA and PhD from the UK earned a good exposure of advanced world in terms of development design, education sector growth and the rise of society from dark ages to now called first world and developed world.

Instead of earning a secure career with personal phenomenal growth in the west, he decided to return back and serve in Pakistan. We think this is the first test of entrepreneurial leadership he passed as he chosen a thorny stage of development in Pakistan over lucrative opportunities in the USA. There were few people with American MBA returned back to the country in the 1980s whereas the majority of people chosen to stay in the USA.

He made attempts to join local universities and taught as visiting faculty too. At that time he might not have realized what he was destined to achieve in the life. Therefore he was put in various furnaces of experiences to be trained and equipped with required mental faculties and personal skills. His experience as teaching faculty gave him experience and understanding about the level of education and governance of educational institutions. Dr Hasan is gifted with a soft heart which feels the situation around and beats high over shortcomings in human life. His comparison of human development in the advanced world and in Pakistan created a wave of trouble in his mind, igniting him to think and act to fix it. This reflects the true mindset of an entrepreneurial leader who feels for the society and tries to solve its problems.

He got the opportunity to serve in one of the largest business groups of Pakistan (Dawood Group) at a senior management position. He gained insights into businesses and corporate experience. Here again, his heartbeat used to increase over the situation of human training and skills. He was seriously worried about training and skills of employee cause inefficiency in the organization. He developed a belief that people training and skills are a major hurdle in our organizations, society and the country overall.

He developed a plan of training institute and presented to its higher management but got refused. Like most of the entrepreneurial leaders and innovators in history, he thought ahead of his time and history repeated itself. He has no choice but to quit his job to pursue his dream of human training and skills.

The corporations and big organizations yet to learn to accommodate a higher level of talent destined to demonstrate new challenges of creating products and services. It is the inability of established systems to absorb or adjust new creation. The organizations live 100 years and beyond have developed this capacity of retaining challenging talent (Collins, J. C., 2001). They keep on testing new creation, diversifying their product mix and keeping themselves align with a change of environment and context. The organizations died within 100 years are those who unable to transform themselves into new business models and mostly deny the change (Christensen, C. M., Raynor, M. E., & McDonald, R., 2015).

Equipped with his ideas, feasibility, business plan, he said goodbye to the lucrative job, took the path of entrepreneurial journey, materializing dream and human service. He has truly affected by the saying of Iqbal;

*“Khuda Tujhe Kisi Toofan Se Ashna Kar De
Ke Tere Behar Ki Moujon Mein Iztarab Nahin”*

The Demonstration of Entrepreneurial Leadership - University of Management and Technology

Dr Hasan Murad is on the waves of uncertainty, risk, peer discouragement and refusal to change. His student (**Abid Hussain Khan Shirwani**) in MPA class at Punjab University also joined him on this thorny road. He has created something great from nothing in hands. Backed by his father vision, meagre financial support and encouragement, he set up a training institute. He started teaching and offering short courses for professionals in industries. He put his best in designing cutting-edge course contents blended with advanced knowledge and practical insights. His winning edge lies in incorporating training and education using advanced technology. He brought in latest tools and gadgets to provide advanced training. He arranged his faculty from the corporate world with 100% practical experience and exposure. His extra focus on content quality backed by delivery using the latest technology gave him unmatched competition in the education sector. The entrepreneurial leaders always innovate ways of doing business by incorporating the latest technology.

The first entrepreneurial leadership trait emerged in Dr Hasan Murad was a blend of academic quality and institutional growth. He was always ahead of his institution in thinking and acting but keeping the current development intact and sustained. He kept on adding new features, new programs, new services, and new faculty till his last day in this world. The two-room training center has become a leading university in the country. Dr Hasan has developed UMT as a living organism which keeps growing, creating new things, adjusting to the new environment and ensuring its survival as being relevant. Dr Hasan has kept on creating new challenges for his organization and pushing it to cop up with the new environment.

The secret of the journey from ILM to IMT, UMT, ILM Colleges, and The Knowledge School lies in the entrepreneurial leadership style of Dr Hasan Sohaib Murad.

The Demonstration of Entrepreneurial Leadership - The Level Five Leadership

Dr Hasan must have discovered himself while travelling the road of UMT development. During our last five years plus observations and notes, we found him a statue of leadership traits. According to Collins, J. C. (2001) the level five leadership includes two attributes as 1) extremely humble and extraordinary will to work. These both abilities are fully coded in his personality. We present a hypothesis here that Dr Hasan organization will last for 100-year and more. The testing of hypothesis is left for new leadership and writers who will write the history of Dr Hasan works after 80-90 years.

Dr Hasan is known for humbleness in all good and bad times. He is never found being personal or critical to his team. He is fond of using indirect ways of respectfully giving feedback and inputs. He is more than willing to forgive wrongdoings and past bitter experiences. He can always take a new start with the hope for win-win for everyone.

His willingness to work is also known for his hard work and dedication. He keeps himself always energized and fresh for new happenings. As the head of the institution, he has to preside over a lot of meetings, deliver speeches in seminars and interact with new guests. His high level of energy always inspires everyone. He moves from class to the airport and from the airport to conference on off-days and working days. His strong will to work enable him to leave an inspiring moment in every activity, he participates.

The Demonstration of Entrepreneurial Leadership - Talent Building

Dr Hasan Murad must have read and well received the concept of War for Talent (Michaels, E., Handfield-Jones, H., & Axelrod, B., 2001). Our observation shows that Dr Hasan built his own methodology of war for talent. He practised it in three perspectives as *1) hunting for new talent, 2) building on existing talent and 3) capitalizing on the talent*. Dr Hasan is known as talent hungry person as he always makes extra efforts to reach out to talented people, convince them to join UMT family and offer a very conducive environment. He never says no to new proposals coming from challenging talented people.

Dr Hasan also paid a significant amount of attention to develop and nurture existing talent in UMT. He encourages in-house training, send people outside for training, put them in challenging tasks and assignments, shifts people roles and jobs and creates many opportunities to help available talent nurture and grow.

The most entrepreneurial aspect and uniquely found in Dr Hasan is capitalizing on talent. A lot of people wonders in his team that how they did such great things in UMT. People developed outstanding departments and schools in UMT. People performed much more than they were actually capable to perform. He knows the secret to make talent work and achieves much more. He creates opportunities for talented people, put them in the challenge, inspire them to face difficulties and help them achieve high-value targets.

The Demonstration of Entrepreneurial Leadership - Leading by Inspiring Vision

The vision is always a future articulation of events and activities. The entrepreneurial leaders give vision and inspire the team to travel from current state to the desired state in future. Articulating a vision is easy but the journey to achieve it is always very difficult. People leave the van in the half, lose hearts and hopes, complained about lack of resources, unable to face difficulties of execution and unable to live above the self for the common cause of society. The people accept defeat before the dawn of success and find an easy way of enjoying shortly attained achievements. Therefore Iqbal says:

*“Hai Wohi Tere Zamane Ka Imam-e-Barhaq
Jo Tujhe Hazir-o-Mojood Se Bezar Kare”*

Keeping people banded with hope, success and long-term prosperity for everyone demands a leader with an inspiring vision. The leader makes people believe that darkness will end and light will emerge if they continue the struggle. Dr Hasan is gifted with this art of keeping hopes alive and making emotions sustain. UMT has seen many ups and downs in its 25 years of life. You name a crisis and UMT has faced it. People conflict, financial setback, students' strikes and security risks are the part of an organization life. Dr Hasan faced everything with the signature smile which inspired his team too. He inspired his team to believe in the vision, believe in hope and believe in a good future for all.

The inspiring vision led the university to thrive for bright future managing its ups and downs.

The Demonstration of Entrepreneurial Leadership - National and International Ventures

The development of UMT was expanded by the entrepreneurial leadership horizon of Dr Hasan Murad. The canvas of his impact making capabilities moved from one institution to national and international sphere. He forgot the term of comfort in life and started living within the zone of discomfort and ever growing. He started influencing the national and international development which made him "**The True Entrepreneurial Leader**". He got the opportunity and well served the development of International Business Forum with headquarter in Istanbul, Turkey. He found a venue to influence management development in Asia and joined the board of Association of Management Development Institution Asia (AMDISA). Hundred

He developed the Association of Management Development Institution Pakistan (AMDIP) which is gradually becoming an emerging body of management sciences. He envisioned the serious need of improvising education quality of management education in Pakistan. He responded to this need by setting up National Business Education Accreditation Council (NBEAC). Now NBEAC is Pakistan regulatory body under the umbrella of Higher Education Commission responsible for accreditation of business schools and ensuring good quality. Recently he responded to the challenge of investment in Pakistan and patronized International Business Exhibition and Conference – IBEC.

He outreaches to the issues and problems of the nation and responds with valid solutions. He initiated many good programs and departments of national interest. The most significant work he recently initiated is inter-religion dialogue and interaction. UMT hosts the annual meeting of scholars from various religions and schools of thoughts to interact, exchange and understand each other. Such kind of meeting develops harmony and helps in controlling terrorism in the society. Dr. Hasan Murad initiated a monthly meeting of literary people over Sunday breakfast in UMT, Lahore. The experienced writers and thinkers used to interact with new entrants in the field literature, art and poetry. It was an excellent opportunity for writers to interact, exchange ideas and share thoughts on various aspects of human life.

The summary

Dr Hasan Murad left USA for Pakistan and high profile job for own venture just like an entrepreneurial leader. He developed many institutions for education and human training. His impact will last and will be acknowledged by future historians.



1990



2018



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Case No. 5: Prof. Dr Javed Iqbal: Reviving Hopes in Balochistan by Revitalizing University of Balochistan

Personal Information

- **Name:** Prof. Dr Javed Iqbal
- **Position:** Vice Chancellor
- **Organization:** University of Balochistan
- **Academic Sector**



The Innovative Approach

He was dean pharmacy in Hamdard University Karachi. He could have enjoyed the comfort and cosiness of life like enjoyed by 1000s of other deans. The next move would have been vice chancellor in any of reputed university in a settled city of Pakistan.

Who advised Dr Javed Iqbal to leave the flowery stage and opt for the thorny stage of University of Balochistan? He says "*it was an internal voice*". Our study shows that destiny has prepared Dr Javed for a critical role anyone else can hardly play. Is there someone who likes to say hello to death?. Dr Javed said it and lived bravely in the front of deadly threats. His courage transformed a dead institution into a living, thriving, progressing, sustainable, dynamic University of Balochistan.

Today, University of Balochistan is a central place and active player for the promotion of innovation culture in the entire province of Balochistan.

This nation salutes Dr Javed Iqbal; The Entrepreneurial Leader

The Pre-Entrepreneurial Era

The man has observed his boat sinking for many years. He was the in charge of his department in University of Balochistan and developed it as the best department of pharmacy. We all understand the luck of the part when the whole body starts the process of depleting. He might have taken the notes on how the largest academic institution (UoB) of his province falls to the local realities and in front of its own people. We can well imagine about the solder that sees his army defeated by the enemy.

Prof. Javed Iqbal was an entrepreneurial leader carrying a very soft heart and kind soul that feels pain on wrongdoings happening around. He has been in the furnace of circumstances where gold was being burnt into ash. He might have tears on his face many times and got dried helplessly without getting any attention.

Our observation indicates that Prof Javed loves his university and treat it as his own baby. Let us think for a while about a father who sees his baby welcoming death slowly. The institution was closed for an unlimited period. Professors got not salary for many months. Staff was found on road most of the times striking and asking for salaries as they have to feed their families. Funding agencies stopped funds because their projects are delayed with no hope for completion.

The spirit died, hopes ended and the institution was left over to the criminals, terrorists and anti-state activists. The vicious circle of circumstances took over the university with a growing risk of collapse. The future glories of nations are determined in their universities. What future the people of Balochistan will have if their mother University is totally collapsed and finally closed?

In this growing hopelessness, someone was being trained by the destiny to break the vicious cycle - Prof. Dr Javed Iqbal; the entrepreneurial leader.

The Start of Entrepreneurial Journey

There was a light invisible in the clouds of darkness. Now it was time to fuel this tinny light to combat the darkness. Prof. Javed Iqbal is picked for this role as vice chancellor of University of Balochistan in 2013. Now the stored pains within an entrepreneurial leader got the opportunity to come out in the form of solutions of the problems. It was time for tears to turn into smiles and hopes. The time demanded from the entrepreneurial leader sitting at the back seats to come forward and lead from the front. The lifetime risk is a very common thing for this role of challenging the unchallenged forces. The entrepreneurial leader was supposed to combat the forces that led the university turn from a place of knowledge to place of conflict, disputes and darkness.

The question was striking the entrepreneurial leader and must be in the mind of the reader was, *“from where to break the vicious circle”*.

The Demonstration of Entrepreneurial Leadership - The Revival of Hope

We human are tied with the thread of hope that knits us to do undoable and turn impossible into possible. The hope of finding a new world led Columbus to discover the undiscovered world of Americas. The human does not lose fight rather human lose hope that leads to defeat. Somehow, the professor understood that great human secret and aimed to break the vicious circle by reviving the hope in the university.

After taking the charge as vice chancellor, he managed to avoid direct conflict with the situation at the moment. Unlike ambitious leaders, he did not let himself get lost in the fight against the waves, were already destroying everything. Professor Javed started preaching about the good, telling people that there is light at the end of the tunnel and inspiring people to believe in the ultimate success of the right. He used to spend significant time on the revival of hope and optimism. Firstly the professor himself developed a strong belief in the return of glory period to the university. Within a short time he translated this belief in his core team and everybody started talking about a dream yet to materialize. It seems that everyone in his team got married to the princess of hope that led to the birth of optimism, determination and hard work.

The Demonstration of Entrepreneurial Leadership - Conflict and Crisis Management

Most leaders are highly inspired and extremely charged to restore

good in the society. This led to a high level of confidence and overestimation of their capacity to defeat the evil. Early success on the road to new world causes the leaders to indulge in the irrelevant wars. They take ambitious moves and lost in the waves stronger than their capacity to manage. Professor Javed was trained for this role and he has proven to be fully capable in this aspect. Professor understood that his job is not to fight with not-good-part of the circumstances. His job is to plant good, water it to grow, protect it from wild animals and help it show its fruits. In the follow up he has to replicate this tree plantation of goodness until entire university starts enjoying the fruits. He never made the darkness his enemy rather he simply took the candle in strong hands and kept increasing its magnitude. Gradually the light has beaten the clouds of darkness and the entire institution is enlightened.

Just imagine the institutions located on Saryab road known for regular terrorist attacks, have been closed for an unlimited time, known for non-academic and unwanted activities is now open for 09am-10pm. We personally enjoyed the tea from the cafe was open at around 08 pm. The university door was closed for out of province people for many years. Now university gives a feeling of second home for any visitor from anywhere. The hopes were revived and crises were managed.

The Demonstration of Entrepreneurial Leadership - Leading by Examples

The academically known term “leading by example” means the entrepreneurial leader is quite selfless. He is not shy to stand up and do the tasks. He never preaches and then slipped away expecting others to do. He stands up, does the undoable, set good examples to follow and expect others to get inspired and follow his path.

We personally saw the professor cleaning windows during our first Invention to Innovation Summit 2016 in University of Balochistan. One day he entered the university in winter during the period of heavy snowfall. The university took the white cover of snow and the main road was almost blocked due to snowfall. He simply took the tool in hand used to remove snow and started cleaning the road. Imagine the vice chancellor cleaning the road of the university. The example was set by imposing fines on those who were responsible too.

A strong message was given to the entire university that performance means here now. The period of non-performing culture is over now. Professor Javed is leading the university by example. The university was known for the culture of strikes by students, teachers and staff. Here are two examples showing how strike culture was ended in the university.

A group of students started intervening in administration and forcefully asking staff to leave. They wanted to have a strike and university to be closed. The professor upon knowing it just came out of the office, took the disturbing students with irony hands and handed over to the police. He also managed the case politically too. He made elders of students groups realize that these few student activists are playing against the interest of education.

In the early days of his leadership, a strike by the lower staff was arranged. He just came out to the protestors and started chanting the same slogans. The protestors felt honoured to find the vice chancellor demanding the same demands. Then he accepted all the demands of the protestors and made a gradual plan of their implementations. The few demands were accepted and resolved immediately and rests were put on some future schedule. The entrepreneurial leader gave direct access to his office blocking the way of being played in the hands of few lobbyists. The professor never did the politics of power rather he led by the examples and enforcement of the rules.

The Demonstration of Entrepreneurial Leadership - The Team Building

There are leaders who take solo flight and register very speedy growth. They often find team building causing slow progress as others also have to go through a journey of trial, errors and learning. Professor Javed understood that he has a very tough and long road to travel and needs a strong team to join it. His road was full of thrones, life risks, having ups and downs. So he took the long and slow path of growth through team building. Again he never punished those who refused to partner his voyage of discovering new university. He nurtured those who shared the pain and were ready for great sacrifices of this journey. He assembled people having the ability to challenge their past performance and compete with themselves. Within a short period of time, the silent soldiers started appearing and leading their fronts. He might have not studied the entrepreneurial leadership but he exercised it well. He also cashed the golden opportunity of freshly foreign-trained PhDs. He took them to a new culture of performance before they become part of the old system. He managed to assemble a good team, empowered them to take initiatives, helped them to turn impossible into possible and shine along with him. He believed in the shared vision and inspired the team to own this shared vision of making University of Balochistan a leading institution in the country. The infrastructure of university has totally renewed, new buildings are added and a look of the modern university is developed.

The Demonstration of Entrepreneurial Leadership - Winning Trust of Stakeholders

The trust works as a catalyst in the relationships either personal or professional. The trust binds each other's, creates an enabling environment to exercise things and builds confidence to think for more collaborative and shared endeavours. Due to the continuous crisis, the projects given to university were delayed and mismanaged. The donors like higher education commission, provincial government and others lost their trust. They saw their given money totally wasted and no hope for future compliance too.

The entrepreneurial leader understood the secret of getting the trust of stakeholders back. He understood that there is only one way and that is completing projects on time with all due compliance. He has to put his house in order first before talking to the donors for new projects and interventions. He gave significant time, developed the dedicated team and set high goals of executing projects.

Suddenly magic started happening. Projects not only ensuring the compliance rather were completed before time. The transparency was made a top most priority in the projects. The zero tolerance was ensured for the corruption. The trust of stakeholders is restored through proactive performance. The stakeholders were lucratively looking at the University of Balochistan as more trusted and active partner for development projects. New projects started coming to university and giving birth to the new life. The development becomes the darling of institution giving smile to everyone.

The reader must enjoy the statement of a donor; “We had the worst experience of working with University of Balochistan and we are having the best experience now too”.

The Demonstration of Entrepreneurial Leadership - Financial Management

The funding is the backbone of every system and organization. The literature on the rise and fall of organization reports cash flow problems as the beginning of the crisis. The financial crisis guarantees the death of the organization. We do not know who taught the financial management secrets to the professor of pharmacy. But we know that he developed mastery in financial management. We as students of management believe in professional qualification. No financial guru can believe in what a professor of pharmacy did. He got the institution near to bankruptcy and made it highly rich institution in the province with a lot of new investments.

His ability to outreach to local, provincial and federal Government with a strong belief in the revival of the university managed to bring a lot of funds. He could not get a single penny just by begging the money without solid plans. He invested significant time to develop very convincing and encompassing growth plan for the university. He and his team presented these promising plans to ensuring deliverables to gain funding.

The financial fairy once got angry at the university and left it, now came back again. The staff used to be seen on roads protesting for salaries being paid on time. The professors who totally lost the hope and started searching jobs here and there now enjoy the market salaries without a single day delay. The University of Balochistan has launched many new projects to fund research of its faculty. The ongoing project's funding from HEC is crossing 60 million and soon will touch 100 million. The university made a huge investment in projects, buildings and programs.

The Demonstration of Entrepreneurial Leadership - Automation of Systems and Process

ICT enables an environment in the institutions to eradicate corruption of all kinds and ensure compliance, timely delivery, good services and efficiency in the system. University of Balochistan was little exposed to the world of ICT applications. Most of the things were done manually that create loop holes in the system. The professor trusted on IT department of the university and assigned it the process of system automation. This approach has also saved millions and empowered internal leadership to analyze, develop, implement and recycle the entire process.

This also led to successful implementation of ICT projects and reduced the likelihood of implementation failure.

The automation gave an increase of millions of revenue and blocked all the malpractices can be expected from the manual systems.

The Demonstration of Entrepreneurial Leadership - Quality Education

The major breakthrough made by entrepreneurial leadership of Dr Javed is reviving trust on the degree of University of Balochistan. Numbers of nationally reported cases of fake degrees belong to this university in the times of crisis. He restored the image by redefining education quality and enforcing strict quality measures. Zero tolerance is observed in merit, assessment, exams and other education quality measures. He introduced cheating-free and transparent examination, semester system in all programs and strict follow-up of the academic calendar. Everybody loved his statement in an interview *"before 2013 people were not willing to get degrees from UoB and today President of Pakistan is distributing the degrees to the graduates of this university."*

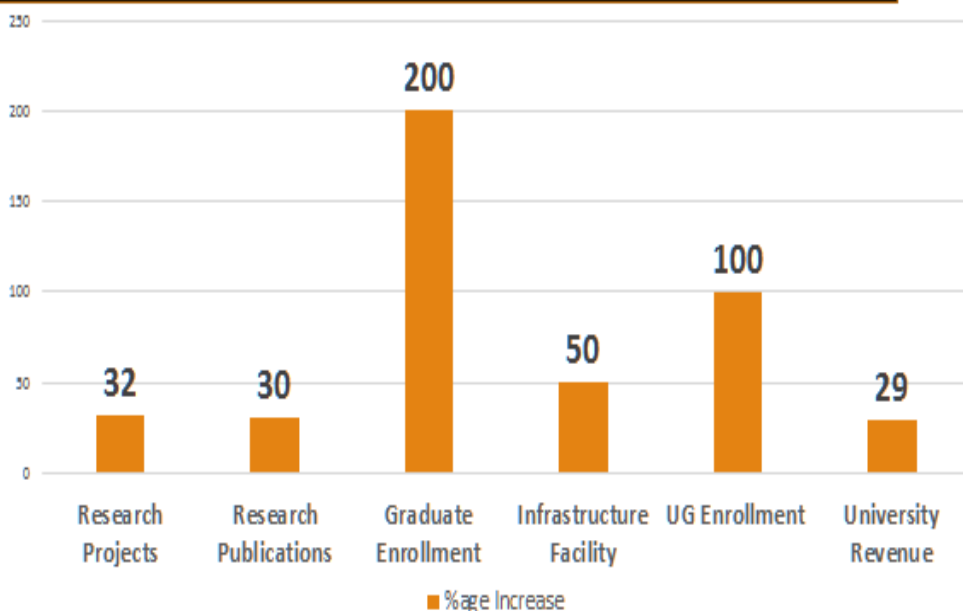
The Summary

The university has travelled in 2-3 years from 3000 students to 10000, from 400 MS research scholars to 2000, from manual to ICT based institution, from routine protest to zero or insignificant protest, from financial failure to financial sustainability, from isolated to provincial leader in academia and particularly from hopelessness to optimism and great excitement.

The all is done because Dr Javed Iqbal an entrepreneurial leader preferred university over his life.

The journey of Hope from 2013 to 2018

Percentage increase in key indicators of higher education since 2013



Case No. 6: Prof. Dr SM Qureshi: Developing and Leading University and S&T Intuitions

Personal Information

- **Name:** Prof. Dr SM Qureshi
- **Position:** Director, Ex-Vice Chancellor, Ex-Federal Secretary
- **Organization:** Mehran University Institute of Science, Technology and Development
- **Academic Sector**



The Innovative Approach

He could be influenced by the political ebbs in Pakistan and lived saliently. He could live an inactive but profiting life. He could have enjoyed the professorship in entire life followed by gardening and playing with grandsons.

However, he chose a continued active and useful role of his life for his profession, the institutions he established and the development of the country. He refused to listen to the voices of disappointment and continuing with status quo. He has been the quite influencing person in science, technology and education for consecutive four decades from 1970 to 2010. He made a lasting impact in science and technology history of Pakistan.

He remains yet (in 2018) quite active, contributes substantially, keeps moving and looking for new and more opportunities to serve and contribute.

The Pre-Entrepreneurial Era

After graduation in 1959 from NED Engineering College in civil engineering, Dr SM Qureshi joined the practical field and worked for industry for a few years. He got the opportunity to do M. Eng. from AIT, Bangkok and went there. Upon return, he again joined industry and served for few years as a consultant. His hallmark projects include involvement in structural design and development of drawings of multi-storied buildings including Hotel Inter-continentals in four big cities of Pakistan.

He spent that decade of the 1960s moving between academia and industry. He got very good practical life exposure working in highly reputed consulting firms and while working on big projects also completed his post-graduation from the world leading Institute too. This mix has created entrepreneurial capability combined with local and international exposure. And to make the best use of his capabilities, he joined S U Engg., College (Now the Mehran University of Engg. and Technology). Luckily he got the opportunity and went to the UK for PhD in the same subject of civil engineering. He completed his doctorate and joined back Jamshoro College of engineering upon return to Pakistan. He believed in and taught engineering for it's more practical and entrepreneurial aspects.

This multifaceted experience and exposure developed a unique resilience, love for science and technology and passion to contribute for scientific development of Pakistan. This decade-long struggle of learning and doing developed Dr SM Qureshi as an Entrepreneurial Leader in Science. Three major incidents of this decade as economic growth of Pakistan, the war of 1965 and fall of eastern Pakistan must have influenced the thinking of Dr SM Qureshi. For the next four decades, he kept trying to help promote science and technology as strong tools for rapid socio-economic development of Pakistan to stand shoulder to shoulder with the developed nations as quickly as possible.

The Start of Entrepreneurial Journey - Establishment of PSF

The 1970s could be known as science and technology decade of Pakistan, when the Ministry of Science and Technology and institutions like Pakistan Science Foundation (PSF), University Grants Commission (UGC), etc. were established. Dr. SM Qureshi was brought into the system as one of important actors as Member (Science) in PSF to work with his Chairman and few other active and non-status-quo scientists. They used to interact with Prime Minister ZA Bhutto through Dr Mubashar Hassan with every day new proposals and programs and were able to convince Mr Bhutto for various scientific interventions and development. Dr SM Qureshi because of his entrepreneurial leadership qualities was hence included in the core team of Mr Bhutto for planning nuclear initiative after the Indian Pokhran experiment. He became part and contributed significantly in initial discussions, meetings and formulating plans.

Dr SM Qureshi, who had been chosen to become the founding Member (science) of PSF, played an active role in the establishment of Pakistan Science Foundation-PSF itself to provide research grants to academic scientists and promote fast research culture in universities and R&D organizations. This gave him the opportunity to design, execute and evaluate policies of funding organizations aimed to promote and popularize science in Pakistan. He devised a plan for capacity building in science, information technology, scientific databases and technological records. He was instrumental in the draft of first ever Science and Technology of Pakistan. He later on at one stage served as Chairman Pakistan Science Foundation also and took initiatives to make science and innovation happen in Pakistan as much as possible.

The Demonstration of Entrepreneurial Leadership - Establishment of Mehran University

The destiny has prepared him for a much bigger role and he was sent back to Sindh as founding Vice-chancellor of Mehran University of Engineering and Technology. The college was upgraded to a university. He was supposed to stay there as most dynamic vice chancellor for around 12 years from 1976 to 1988. After entering the Mehran University, people think they are dreaming and not in any Pakistani university in reality. You can talk about inefficiency, corruption, etc. elsewhere in Pakistan but not in Mehran University. You can talk about injustices, nepotism, etc. in Pakistan but not in Mehran University. You can talk about political influence in Pakistan but not at Mehran University. You can talk about protests, strikes and non-professional conducts in Pakistan but not in Mehran University. Dr SM Qureshi had a dream of creating a

university where all men and women would be treated equally according to merit and rules. This happened in a rural part of Sindh-Jamshoro. In a short time, the university emerged as leading engineering and technology University of Pakistan.

We know how he handled the daunting political influence and kept away reference culture from Mehran University, but we will not be able to write here. He is a beautiful man, beautiful civil engineer and that beauty is very much reflected in the architect, landscaping and overall building design of Mehran University. In response to our question, how he managed resources, Dr SM Qureshi said. *“I used to outreach to various donors and treat them proactively. I used to think of various opportunities and keep exploring and hunting where lied surplus money in the Government and fetch it before anyone else reached or was wasted. I personally interacted with donors and win their confidence to the university for whom you had to demonstrate the leadership and honesty that you could utilize their assistance properly and well in time. The Japanese aid to Mehran was an example for its proper and quick utilization in very limited time” I always ensured that the projects were completed on time and reported duly to the donors”.*

We through our country-wide interaction and experience know rise and fall of many universities. Mehran University is unique in nature that it has sustained its momentum of growth, academic excellence and culture of quality merit-based education. Our curiosity was to know the secret of sustained growth.

Dr SM Qureshi said; *“yes I was aware of this phenomenon and got worried in my last few years. I have been observing leadership dilemma and the crisis in our country. I started empowering people and institutions during my presence there. I started developing a lot of rules and regulations. I developed systems and made them work after revision during my presence. I went behind the scene and let the institution take off and grow through its people and systems. There must be some ups and downs due to the personality of vice-chancellor in charge. The current VC (Dr M. Aslam Uqaili) has made a great difference and everytime we meet gives me more confidence in the sustainability and further growth. His activism and dynamic approach match the growth pattern of the university envisaged”.*

Dr SM Qureshi is one of the people who observed Pakistan rising and falling again. He is among those who remained at the helm of affairs in the country. He speaks very clearly and openly about successes and failures. He found out the secret of science failure in Pakistan. This same problem, IRP is trying to address. Let us hear it through the words of Dr SM Qureshi.

“I used to think a lot why science is not making an impact in spite of tremendous efforts and money spent on it. I found out that the link between science and development is missed. To bridge this gap we need trained human resources who understand both science and its diffusion mechanics. We need to train technology managers who can take science out to the market and sell it to the society. Therefore, I took the first ever initiative in the country of developing technology-trained professionals. We set up Mehran University Institute of Science, Technology and Development

(MUISTD). This institute is now producing experts in science and technology for development. We realized then that it must have an arm to take Science and Technology development to a logical conclusion to add to the economy and established the Centre for Innovation and Entrepreneurship”.

We salute to Dr. SM Qureshi; a visionary entrepreneurial leader.

The Demonstration of Entrepreneurial Leadership – Federal Govt. Services

While serving in his fourth term as VC Mehran University, Dr. SM Qureshi was brought back by yet another Prime Minister , Mr. Junejo in 1987 as Federal Secretary Education and then served numerous Ministries as Secretary and chairman of many policy-making boards and organizations of federal government of Pakistan., mostly related to science, technology and education. He took many small to large initiatives during his leadership periods including framing of various national policies. Many of these initiatives are very innovative and still continued to operate under respective organizations.

One of the hallmarks initiatives is to bring in line the Professionals like Engineers, Doctors, Educationists in line to reach highest grade 22, which was reserved for only Central Civil Service people and get the entitled to civil and other kinds of awards exclusive for educationists which is the great service to this nation.

The other hallmark contributions include his support for establishment of NUST, as then-Federal secretary of science and technology for his own dream of establishment of high profile institutions like MIT, IITs or KAIST in Pakistan. This provided him the opportunity to best utilize the resources of Ministry of Science and Technology which is tax-payers money. He proactively supported NUST, helped in planning and designing and allowed a major chunk of S&T budget to go to NUST. He feels the pride of being a founder of NUST, which is now among the top best Universities of Pakistan.

The Demonstration of Entrepreneurial Leadership - General Roles and Initiatives

Dr SM Qureshi also served as Chairman, University Grants Commission (UGC), Chairman, Pakistan Council for Science and Technology (PCST), Chairman, Council for Works and Housing Research and Chairman, Pakistan Science Foundation (PSF). He has been a member in the governing boards of 100 plus institutions, organizations and universities and Chairman of dozens of them. He has the credit of doing a significant contribution to the foundation of International Islamic University and SZABIST to become a world-renowned institution.

He has been an advisor to Governor Sindh for many years on education and established the CIEC to monitor and evaluate the Private HEIs for grant of Charter and their performance. He was then given the responsibility to do so for public sector HEIs too.

The Summary

Asia Institute of Technology Bangkok developed a Hall of Fame and entered therein only 12 of their over 50,000 graduates selected by a high profile Selection Board, including Her Royal Highness Princess Maha Chakri Sirindhorn. They were selected for the service to their profession, to the Alma-mater and more so to their country. Pakistan is proud that Dr SM Qureshi name is included in the Hall of Fame of such successful alumni. The award was conferred on 51st AITs Ceremony. We are proud that he was elected as Vice Chairman, UN Commission on Science and Technology for Development (UNCSTD).

We are thankful to Dr SM Qureshi for this long-struggling journey for Pakistan.

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Case No. 7: Mr Abid Hussain Khan Shirwani: Leading Innovation Movement in Pakistan

Personal Information

- **Name:** Mr Abid Hussain Khan Shirwani
- **Position:** DG, Director, CEO, President
- **Organization:** University of Management and Technology, IRP, SATHA
- **Academic Sector**



The Innovative Approach

He joined Halley College of Commerce, University of Punjab as a lecturer. He started living comfortably. He could have enjoyed this comfort entire life.

He resigned and moved from comfort to discomfort of entrepreneurship by joining Dr Hasan Murad to set up the academic institute. Mr Abid Shirwani further has chosen the difficult path of promoting triple helix collaboration in Pakistan. He led the largest R&D network of Pakistan named IRP. He coined Innovation Summit which has mobilized R&D stakeholders all over Pakistan and connected them. He is leading South Asia Triple Helix Association for S&T policy advocacy.

The Pre- Entrepreneurial Era

The surprise changes occur in human life that leads to a certain role and significant contribution. Mr Abid Shirwani left his master in physics and completed his master in administration. During this shift, he was not aware that he has to lead and administer academic institutions. Mr Shirwani was destined to play a management role in higher learning institutions that was seeded in his early education.

During his master in administration in University of the Punjab, he got visiting teacher; Hasan Sohaib Murad. Dr Murad was in a higher management position with Dawood Group of Industries, Pakistan. The second thing he was destined to do was friendship with his teacher and mentor. Abid Shirwani joined Helly College of Commerce, University of the Punjab as a lecturer. His continues interaction and meetings with Hasan Murad led to common thinking and planning to do something great in life. This relationship grew from student-teacher to friends and landed them in a startup in training business. After a short exercise, both decided to quit their jobs and devoted themselves fully to this newborn institution. They saw a dream and started having sleepless nights to materialize it. This is the non-conventional way of living by the entrepreneurial leaders.

The Start of Entrepreneurial Journey

Mr Abid H K Shirwani got his dream job of managing an institution with unique features and characters. Institute of Leadership and Management was born to become an impact making an organization. Dr Hasan Murad took the planning part and Abid Shirwani ensured its right execution. Now he came to know why he left physics and enrolled in administration degree.

He brought his office chairs, tables and kitchen accessories from his home. He worked without a salary for many years. He travelled inside and on the roofs of public vans. He knocked many doors to get support for this dream institution. Few were opened and many remained closed. The societal customs and traditions here in this part of the world seldom allow the person to go for the dream job. The society demands you to finish a degree, get the secured job of Government, get married and start the journey of family management called "*Roti, Kapra or Makan*" (Food, Clothe and House).

He went against waves of the social sea. The people love to study science as a sign of pride but he left and studied administration. The families like to sell their every asset to secure a simple job with Government for their sons and daughters but he resigned from the job in the premium University of Pakistan. The people dream to get a teaching job but he left his lectureship in a highly valuable Halley College of Commerce. People struggle from discomfort to comfort but he travelled in the opposite direction in pursuit of his entrepreneurial career.

The Demonstration of Entrepreneurial Leadership - University of Management and Technology

Taking the initiative is always very easy but leading an institution through heavy winds of circumstances for 2-3 decades is the big challenge. Abid Shirwani gave his best entrepreneurial leadership

art to the institution led by Dr Hasan Sohaib Murad. They travelled together a long journey of 27 years. The intuition has grown up from 1-2 rooms to a leading university known as University of Management and Technology - UMT. He also heads a wide network of ILM colleges. Everyone in UMT from security guard to a carpenter and department head seems in love with Abid Shirwani due to his heart-touching leadership style.

His door remains open and entry is not restricted by personal staffs and security guards. His office is more than a helping centre where people come with problems and get solutions. He spends most of his time-solving problems of people, arranging references for them and making calls to potential people who can extend help to needy people.

Faculty, staff and students keep visiting one office in UMT and that is the office of Abid H K Shirwani. Dr Hasan Murad, Rector UMT publically acknowledged Abid H K Shirwani in his speech, saying; *"If Abid Shirwani has not joined me, this dream would not have been materialized"*.

Mr Abid Shirwani was born to a family of civil servants and Govt officials. By default, he inherited a lot of connections and relationships in civil bureaucracy. God has also made Abid Shirwani a man of connections and relationships. He combined his inheritance with relationship friendly personality and developed a leadership style we term it *"Leading through Social Circle"*.

The marvellous growth of UMT is largely supported by this leadership style of relationship. He brought a lot of support and resources from family and friends. He used his connections and relationship skills to make high profile people UMT friends. His helping style further fueled this process and he became great binding force between UMT and resources of the society.

The Demonstration of Entrepreneurial Leadership - Institute of Research Promotion

Abid Shirwani in his earlier 15 years (from 1990 to 2005) served UMT and helped to become a national leading university in the private sector. He developed his triple helix thoughts during his postgraduate study in the UK. He observed and experienced how three pillars of society as Government, industry and academia work together for science, technology and innovation. He started advocating for this triple helix in his discussion and speeches.

Institute of Research Promotion-IRP is the best reflection and demonstration of his thoughts. Under his leadership as CEO, IRP becomes a national largest R&D network. IRP has united the nation for innovation-led growth and development. His leadership horizon expanded to the national level and a dynamic R&D drive encompassing R&D promotion, policy development, technology transfer, and capacity building in scientific research has become a reality in the form of IRP.

His leadership impact is now moving beyond horizon through South Asia Triple Helix Association- SATHA. SATHA as part of an international triple helix association aims to serve South Asia in exercising triple helix in real terms.

Under his leadership as president, SATHA is doing policy advocacy for science, technology and innovation.

The Demonstration of Entrepreneurial Leadership - Innovation Summit

Abid Shirwani coined the term Invention to Innovation Summit as a platform for technology transfer. A two-day event was envisioned to exhibit ideas and technologies in Punjab University, Lahore. This innovation summit is regularly conducted in four provinces of Pakistan. 100 plus organizations from academia, industry, public and social sector have joined this innovation summit. It is the largest R&D event of Pakistan providing a complete innovation ecosystem for two days. The summit has connected the R&D stakeholders with each other and demonstrated the triple helix model in action.

The Summary

Abid Shirwani has chosen an uncertain, risky, innovative and entrepreneurial life. He ventured into things which are otherwise no-go areas for others. The impact of entrepreneurial leadership is clearly seen and felt in Pakistan.

Case No. 8: Dr Khurram Tariq: From Least to Lasting: Developing Innovative Sustainable Organization

Personal Information

- **Name:** Dr. Khurram Tariq
- **Position:** CEO
- **Organization:** Kay & Emms
- **Industrial Sector**



The Innovative Approach

The knitwear sector in Pakistan has experienced rise and fall causing the disappearance of many giants. In the same period, Dr Khurram made Kay & Emms a multinational in knitwear. The CEOs cried for an increase in business cost due to energy and interest rate. He further increased his business cost by adding huge R&D budgets. The layoffs become the norms of industry and he hired engineers to run the even traditional operations. OMG, what a leadership?

He succeeded by doing the opposite to his sectors success formulas. Simply, because, he innovated the business model, he was not taught in his highly standardized education in medicine.

This business model turned a week small unit into a multinational operating in EU and USA.

The Pre-Entrepreneurial Era

He was born to a family in the textile business in the city of textile Faisalabad Pakistan. He parted the way and took medicine for education and profession. Being part of the family in textile, he had to observe business practices, listen to business news, interact with the business community and visit his father factory occasionally.

According to our observation, he got two different education as conscious education and subconscious education. The former was about anatomy and medicine and the later was about entrepreneurship. Apparently, they are two mutually exclusive educations but they both joined hands in the personality of Dr Khurram Tariq. Both educations together developed a Dr Khurram Tariq who can run in the opposite direction of heavy winds of the time.

He was a bright student and was asked to choose medicine as the norms of that time. He did not choose the business initially. He was directed by his sub-conscious to go for business after a heart attack to his father. The medicine taught him how to analyze symptoms and reach to the roots of illness. He learned how to take preventive actions before disease occurs. He got training on how to do post-partum of business problems and challenges.

His business observations taught him what is being missed or done wrong in the knitwear sector. He understood the vicious circle of industry problems and got the cue on how to break it.

He got a few things from his mother like discipline, independent thinking, and daring attitude. He is God gifted in few things like believing in right and principles, taking care of values, respecting people, helping others to grow, making a social contribution, sparing time for spirituality, attracting talent and maintaining a relationship with others.

The Start of Entrepreneurial Journey – Sustainability of Kay & Emms

He sacrificed his chartered plan of health care venture and decided to save the family business. He was a considerate and values-oriented person, therefore, he preferred his family over his ambitions and goals. His family business in textile was hitting bottom and was in financial crunches. His earlier challenge of entrepreneurship was to get his business back on road to survive, sustain and grow. The history of organizations shows that most business leaders are known for business growth and acceleration. The business history is very short in providing examples of CEO who get industries out of crisis and pull back to growth. The biggest example is “IACOCCA” who joined a dying Chrysler and revived it in few years.

The New York Times¹ covered his story and wrote;

¹ **Source:** <https://www.nytimes.com/1985/08/25/business/can-iacocca-keep-chrysler-moving.html>

“LEE A. IACOCCA has become a best-selling author and his Chrysler Corporation is making more money on each car and truck it sells than even the mighty General Motors Corporation. A company that six years ago was teetering on the edge of bankruptcy and begging for Federal help has emerged as a small, effective and feisty combatant in the increasingly competitive automobile business”.

Dr Khurram did the same as IACOCCA of Chrysler did. Dr Khurram took the challenge head-on, faced the debtors bravely, analyzed the situation deeply and made a comprehensive plan to get the boat out of dead-sea. He never hides behind the curtains to see what is happening. He leads by front and faces the challenges directly and personally. He takes responsibility and entrusts all the stakeholders with hope and commitment for a better future for all.

He spent first 10 years ensuring sustainability, smooth operations, honest working and commitment for delivery of Kay & Emms. The good time back again and Kay & Emms was ready to fly.

The Demonstration of Entrepreneurial Leadership - The Culture Change

The medicine graduate Dr Khurram was driving Kay & Emms to next level of fast growth. He started with making a house in order first. He knew that traditional foremen and supervisors are good for maintaining production but cannot support the next level of international moves. He has done scanning of international changing scenario in value-added textiles and was getting ready to respond it. He hired international firms to train and build the capacity of his team and invested heavily in this area.

He developed an open culture with high spirit, task delegation and goal orientation. He knew the art of breaking resistance and culture dogmas so he managed to introduce fresh thoughts gradually.

Kay & Emms is known for a company of engineers having the largest number of specialized and diversified engineers in the industry. These engineers were given good salaries, detailed training, flexible time to learn and digest and single task to get the industry advanced in every area and aspects. Kay & Emms was turned from a traditional textile company to R&D led innovative company in value-added textile.

The most importantly planning units were set up to foresee the future and help Kay & Emms get ready to respond to its challenges. A quality lab is set up and people in production are trained to ensure zero-defect in the production. The supply chain was engineered and designed on very professional grounds to gain cost and efficiency advantages. The Kay & Emms is known for having the best supply chain program to ensure his supplies reach to customer destination safe, sound and timely. The production units are integrated through planning to manage smooth operations at every phase. New technologies were introduced and contracts are made with international consulting and technology firms to supply cutting-edge technologies to Kay & Emms.

Kay & Emms regularly sends his teams and professionals to study the best practices in the world and introduced them back in the factory. This learning brought a lot of new and modern concepts into the Kay & Emms culture.

The Demonstration of Entrepreneurial Leadership - The Rise of Kay & Emms

Dr Khurram after putting a house in order and securing business at a sustainable level moved towards expansion. He knew that dying companies in his sector are at the same level. The sustainability at sector comparative level is nothing but a signal to death. He took a daring step and set up his R&D unit in Spain. This R&D unit helped the Kay & Emms bypass the death trap in Pakistan for knitwear industries. This death trap is respectfully called the buying houses. His R&D unit served the role of buying-house and connected the company with the big brands of EU and USA operating in EU. He secured his sale with shop brands but jumped to global brands through own R&D centre in Spain. We never heard such a bold move exemplifying as high risk and high reward. This bold move paid back making Kay & Emms one of the largest suppliers of value-added textiles in Pakistan. His team of engineers and professionals was already ready to make breakthroughs and meet requirements of Global demands.

The Demonstration of Entrepreneurial Leadership - Kay & Emms from National to Multinational

Dr Khurram replicated the similar experience in the USA by setting up R&D centre and exploring the potential of the local market. He gained significant experience by initially working with local brands and ensuring smooth supply according to international market standards. Later he moved to launch his own brand in the USA. The brand gained momentum slowly and now become a sustainable venture.

The investment made in company culture, training, innovation drive and recruitment of engineers paid back many folds now. The own brand in USA market gave good profit margin and absorbed the highly innovative capacity of production of Kay & Emms.

This has also opened the doors to unlimited opportunities. The sky is no more the limit for Kay & Emms.

The Demonstration of Entrepreneurial Leadership - Serving Beyond the Corporate

Dr Khurram is successful in his corporate venture. We observed that he is more successful in life as a good human being. He participates in the boards of development organization and policy bodies. He served as chairman of many associations, committees of chambers of commerce and bodies of local and national industrial estates. He is active in business politics and leads the development causes of industry community.

Dr Khurram is very active in social circles and contributes in many small to large welfare organizations. He is an active donor in a number of healthcare projects and set up own K-Foundation also. Kay & Emms runs a government school also. He also takes a keen interest in academic institutions and contributes in various boards and committees of the universities.

The Demonstration of Entrepreneurial Leadership - The Entrepreneurial Leadership

Dr Khurram is a multidimensional personally which makes him a

true entrepreneurial leader. He achieved his passion for medicine and left to survive his family business in textile. He transformed this small unit into multinational working with top brands of the world. He served his business community, contributed in the social sector and participated in the boards of universities and R&D organizations.

He believes in continuous learning and kept himself on the path of lifelong education. He took courses of the best universities in Pakistan like LUMS and Executive Education from International institutions like MIT, USA.

He developed a very unique entrepreneurial leadership style of blending modern practices with local realities. You can see him sharing local jocks of the region he belongs to and stories of USA and EU too. He inspired the team with vision and at the same time tracks their progress day by day. He empowers team but never let them miss the given targets. He invests heavily in R&D and future projects without ignoring bottom line statistics.

He thinks globally but acts locally. He looks beyond the sky without losing touch with the ground. He empowered the team fully but keeps the control too.

Dr Khurram has 28 years of experience where his start meets his last. He got dual education of conscious and sub-consciousness in the early period of approaching youth. His claim of being young is still valid as he excellently exercises the dual role of leading towards future by managing the local realities.

The Summary

Dr Khurram gained exponential growth in the period of hues and cries of the business community due to high business cost and energy shortage. He got the unique ability to connect the available present with the future growth. He ended the power boundaries when other CEOs made royal offices. He invested heavily on talented engineers when qualified people were being fired in the industry. His investment on people paid him back with huge success.

We would like to attribute this case study to his people who made him a successful entrepreneurial leader.

Case No. 9: Mr Abrar Ahmed: Promoting University-Industry Collaboration for Innovation Led Growth

Personal Information

- **Name:** Mr Abrar Ahmed
- **Position:** CEO
- **Organization:** SRC PVT LTD
- **Industrial Sector**



The Innovative Approach

He was born to a leading business family in Pakistan. He graduated from Boston University USA. He could have lived a lavish life just like many other sons of business community but he was an entrepreneurial leader. He chose a startup in a very different field, following the legacy of his grandfather. Instead of enjoying a life of a SAITH (business king) he embarked on the journey of innovation, entrepreneurship, education and public service.

Today Mr Abrar's company is the most innovative in leather chemicals and 2nd largest of Pakistan in wood adhesives. Innovation is surely in his DNA.

The Pre-Entrepreneurial Era

He opened eyes in two mutually inclusive and endorsing environments. The one is the leading business of his family in leather and second strong value system of his family. His family is characterized by values-based businesses, taking care of local traditions, employees, environment, customer, law and other human obligations. His group Siddiq Shafi is known for ethical business practices, paying full taxes and avoiding all kind of corruption to possible level.

Abrar Ahmed was sent to Boston USA for graduation. This is his very influencing period as he observed secrets of economic development. He saw innovation as the engine behind USA growth and academia behind this innovation. He understood that no nation can advance without exercising triple helix approach. He realized and studied in detail how university-industry-government nexus is created and used as a competitive edge to build the knowledge economy. He felt this phenomenon at heart and got trained to play the same role on returning back to Pakistan.

The Start of Entrepreneurial Journey

We always observed two Abrar in one person. One Abrar wants to develop his own business empire totally based on ethical business practices. The second Abrar wants to improve the business and social ecosystem. He innovated unique methods to combine both challenging tasks by his entrepreneurial leadership.

He scanned the opportunity of chemicals business, did some planning and ventured into it. He took a very humble start and did most of the things personally in the beginning just like a startup. He started a small company in Karachi and shifted to Lahore after registering some growth.

He became part of the crescent trust for social development and contributed to many social initiatives for the welfare of the poor community. The crescent trust is managing schools in rural part of Sindh for the education of the kids of less privileged communities. He also supported the installation of Tube Wells for drinking water in the area of Thar- The desert.

The journey of an entrepreneurial leader started. The destiny had great plans for him and was there to guide him.

The Demonstration of Entrepreneurial Leadership- SRC Growth

The innovation was put in his DNA and he transferred this DNA into SRC foundation. He set up a good R&D team to innovate products and services. In a short period, his product range increased from only leather speciality chemicals to adhesives, water treatment, textiles and others. SRC became one of the largest wood adhesives company. He attracted best minds of the market and inspired them to work for SRC. He developed a very environment-friendly and employee-centred culture in SRC. In SRC you can find CEO sitting on the table next to you and enjoying the same lunch offered to you by SRC kitchen. You can shake hand with CEO in Mosque too. The safety of employees from hazards seems the top priority of management in SRC.

We see the dedication and loyalty of employees in making SRC the leader in speciality chemicals, offering a range of 350 plus products, fully backed by quality services.

SRC set up good R&D centre, application lab, mini tannery and many pilot level plants to support its R&D initiatives. SRC dedicated significant R&D budget to create future products and services.

SRC made many failed attempts too and few initiatives had to seize as well. Many innovative products fail at the R&D level too. This picture is a true dynamic innovative culture of an organization which has been diffused by an entrepreneurial leader.

SRC remains in closed contacts with innovators, scientists, academicians and students here in Pakistan and abroad too. SRC sent its R&D people to academic conferences, exhibitions and meetings to interact and explore opportunities of working with academia. Numbers of academic projects are financially and technically supported by SRC R&D unit. SRC R&D unit welcomes academic scientists for visits and their projects to be piloted in SRC. Recently SRC has signed a technology licensing agreement with NUST- The leading university in Pakistan.

The compliance with standards and quality controls has always been an issue in the production culture of Pakistan. Mr Abrar was aware of this challenge owing to more than 60 years of industrial experience of his family. The entrepreneurial leader is always on the waves of experiments, solving current problems and exploring new challenges. He approached multinationals in chemicals for a joint venture (JV). He succeeded in bring ALPA chemicals and few other brands in Pakistan as JV or distribution. This gave international exposure to the team, improved capacity of SRC in standards and quality compliance and helped SRC stand equally good in quality products with multinationals.

Mr Abrar always thought ahead of his company leading from the front just like an entrepreneurial leader. SRC entered into export after gaining good hold of the local market. Now SRC is exporting to 20 plus countries and this trend is still on the rise. The journey from a small startup to the locally leading company and big exporter is very well led by an entrepreneurial leader.

As the journey of an entrepreneurial leader never stops, nor has an end; Mr Abrar keeps on moving in the exploration of new avenues. He creates new challenges for himself once the previous one is addressed. Recently, he ventured into dairy business and the brand "*Taza*" is becoming very famous now.

The Demonstration of Entrepreneurial Leadership-AFAQ

Pakistan faces many types of crisis in the education system; including language, course contents, teaching methods, teacher training, schooling system and infrastructure. The group of visionary people under the charismatic leadership of Dr Hasan Sohaib Murad did brainstorming to address these challenges in education. This thinking led to the birth of AFAQ publishing. Mr Abrar Ahmed was given the responsibility to lead this visionary educational venture.

Here again, we see the entrepreneurial leadership of Mr Abrar explicitly. AFAQ, a small startup turning in to the leading publisher of school books! It is backed by a very strong R&D unit which creates innovative contents. AFAQ have ventured into many allied services along with books to improve education systems and services.

In pursuit of the next challenge, Mr Abrar has handed over AFAQ leadership to the new team now. "He initiated, he built and he handed over to next team" is the true demonstration of entrepreneurial leadership.

The Demonstration of Entrepreneurial Leadership- LCCI

Mr Abrar is totally an unconventional person. He believes that cleaning only his own house will not serve the purpose unless his street, town and country also get cleaned. He thinks for others, spend his own resources; time and energy, makes good plans and acts accordingly to improve ecosystem. This makes him an entrepreneurial leader and reflects in his continuous services in Lahore Chamber of Commerce and Industry. He served as executive member of LCCI and headed many steering committees.

His efforts produced the results in the form of establishment of Academia-Industry Linkages Committee in LCCI, these days headed by Mr Umer Saleem; a young industry leader. This is the first initiative by any chamber of commerce in Pakistan. This committee has developed linkages with Higher Education Commission-HEC now. One of the hallmark initiatives of this committee is a celebration of academia-industry-week every year in Pakistan. The first week of April will be celebrated all over Pakistan as academia-industry linkages week with lots of related activities. HEC has endorsed this and instructed to all academic institutions and circles accordingly.

The committee has done tremendous efforts related to resource mobilization and linkages. The committee has met vice chancellors and management of universities to inspire them for industry-oriented research projects.

ہمارا نرم رُو قاصد پیامِ زندگی لایا
 خبر دیتی تھیں جن کو بجلیاں وہ بے خبر نکلے
Lehza

The Demonstration of Entrepreneurial Leadership- PCMA

Mr Abrar was in the chemical industry and always remained worried about the collective good of this sector. There was no association of chemical producers in Pakistan. He took the initiative and got the association registered. He spent personal resources to set up and establish Pakistan Chemical Manufacturers

Association (PCMA) including office and staff. He was elected the vice president of PCMA in its first inaugural year. PCMA is taking good initiatives for the interest and rights of the chemical industry.

The Demonstration of Entrepreneurial Leadership- Vocational Training

Mr Abrar loves the capacity building of young people in vocational skills. Pakistan has a large share of its youth having no proper education nor equipped with skills. He served on vocational training committee of LCCI to positively affect the training institute around. He is also associated with one training institute. He has interacted with policy institutes of Pakistan and many international agencies to contribute in the development of vocational training programs in Pakistan.

The Summary

There are people intend to stay limited to their own house, own family and own business even at the cost of damages to others. But there are people who take care of own businesses and families but also contribute positively to the good of society at large. And then there are people who try to improve the ecosystem for the common welfare of society even at the cost of own finances and resources! Verily, we found Mr Abrar Ahmed belongs to the third category of entrepreneurial leaders. He makes development happens. He makes innovation happen. We do hope that the young generation will idealize him as a role model and follow his entrepreneurial leadership of serving business and society both. Authors are also among the followers of Abrar Ahmed.

Case No. 10: Mr Mumtaz Ud Din: Developing Innovative Products by Using Management Approaches

Personal Information

- **Name:** Mr Mumtaz Ud Din
- **Position:** Plant Manager / DGM
- **Organization:** Bifo Industries Limited, Hattar, KPK, Pakistan
- **Industrial Sector**



Preamble

“Altitude depends on Attitude” This is what exactly he experienced in the organization’s journey. Here he challenged himself beyond the limit and therefore was able to touch heights that no one expected him to be able to reach. He made things happen. He believed that difference between *“The best and the Rest”* is implementation. He realized that one may have a plethora of data, information and ideas but in the end, it comes down to decisiveness.

The Innovative Approach

The managers by and large take no risk nor do they put their jobs at risk. They go for SOPs and make sure that things sustain and keep moving.

He takes a calculated risk, puts the job at risk, ventures into the unknown, unheard of areas, takes initiative to create new SOPs doing away with old paradigms. He is Mumtaz Ud Din Plant Manager / DGM Biafo Industries, Hattar. He transformed a routine production company into a highly innovative company saving import bill of millions of dollars & contributed in nation building process through sustainable growth. This calls for a unique blend of courage, self-confidence, risk-taking capacity, logical approach and analytical capabilities.

The Pre-Entrepreneurial Era

Mumtaz was in middle management cadre responsible for Inventory Management, Administration & Compliance of Quality Control System. He is a keen observer & learner and started learning various techniques and tools necessary for continuous improvement in the company. Extensive exposure/training at National and International level on Quality & Productivity Improvement further augmented his thrust to bring Qualitative & Quantitative changes in the organization. He realized the value of playing the role of a coach/mentor and a guiding father instead of being an old-fashioned manager. He adopted a novel approach of combining Human Resource and Quality Improvement drive to inculcate the spirit of innovation in the industry.

This was his pre-entrepreneurial period where his skills and thoughts are nurtured and polished.

The Start of Entrepreneurial Journey -Promotion as Plant Manager

Mr Mumtaz was promoted as Plant Manager at the time when the survival of the company was a serious concern after resignations of qualified / experienced Plant Managers. The organization was making 3-5 routine products and selling to fixed permanent customers. In our culture of a daily routine job, everybody was happy remaining in comfort zone without being exposed to a challenging and innovative environment. The company was often in financial crisis due to the monopoly of 40 years old well-established competitor, our captive culture of non-acceptance of new technology, no orders & disturbed cash flows. It was a challenge for the newly promoted Plant Manager. He took it as an opportunity. He applied simple management tools & techniques, blended with openness in order to ensure survival, growth & competitiveness of the company.

He developed an entrepreneurial leader inside and it was time now to test. The entrepreneurial journey starts now.

Demonstration of entrepreneurial Leadership - The Human Resource Route

Mr Mumtaz knew the secret of managing people with the simple philosophy of Respect, Involvement & Appreciation / Recognition as well as creating Team Work Spirit. He started conducting brainstorming sessions at floor level to bring change in the attitude of workers toward life & work. He believed that the attitude of people counts 90% in their work performance.

It was the moments of joy in the company as a pure production company was geared to create good habits, positive thinking, change of attitudes, work ethics, professional values and compliance behaviour. He took no notice of negative criticism around and kept on his march towards Human Resource Development without getting unnerved. He acted as Change Agent to improve quality of life of others. Employees were empowered with a sense of ownership which is essential for any progressive, innovative company. They were inspired to believe in the progress of the company for mutually beneficial growth & across the board benefits for all stakeholders. He cultivated the culture of out-of-box thinking, emphasizing innovativeness, experimentation & calculated risk-taking behaviour.

In a short period, he was able to develop Innovative Teams / Cross-Functional Teams with the support of the management to ensure survival, growth & competitiveness of the company at national & International level.

Demonstration of Entrepreneurial Leadership- The Kaizen Management

The breakthrough the initiative of Mr Mumtaz was to create a culture of continuous improvement in order to meet serious financial constraints & best utilization of meagre available resources for the smooth operation of the plant. He did not advocate for breakthrough ideas and out of the box inventions to revolutionize the world. He was humble, inspiring, accessible, family oriented and caring Professor of Practice.

He simply Benchmarked best practices/competitors & challenged employees to excel, feel proud of their achievement & beat their own performance.

As Prophet Muhammad (PBUH) said.. Alas...*“One Whose Two Days are Equal is a Looser and the One Whose Today is Worse Than Yesterday is Accursed”*.

He was able to transform the organization & make them realize that greater satisfaction lies in being a part of continuous improvement drive in every aspect and dimensions. The slogan of *“BIAFO FAMILY”* further strengthened Ownership attitude so that everybody could contribute in bringing betterment as a Family Member, generating Ideas to save cost & giving valuable inputs to bring consistency in quality of products. Customer focused approach was adopted as a key.

Mr Mumtaz is a DGM but turned into a **ROLE OF COACH / MENTOR** to bring a **CULTURAL CHANGE**. He conducted sessions on Behavior & Secret of Success, Ethical beauty of Islam, SOP of Human Mind & Dreams, Attitude choice & Habits, Character Building & Self Accountability, Ideas for Continuous Improvement, Multitasking & a Peaceful, Successful & Joyous life.

He inspired his team with Participatory Management Attitude & refreshed DNA of the company by announcing various incentives. He planned, developed & practically implemented *RESPECT, APPRECIATION & RECOGNITION of THOSE who were REAL* Contributors in achieving goals/objectives for the progression of the company.

He implemented merit base selection, started Orientation Programs & refined appraisal system to be used as a tool for highlighting achievements & establishing clear objectives for all employees.

“What I Say I Mean It” philosophy was truly followed for a good incentive system. This derived employees to believe and act on the principles of *Kaizen Philosophy* for sustaining as a leading and pace Setter Company of Pakistan.

The culture of the organization was transformed into a very healthy, innovative and positively charged environment, a basic prerequisite of any innovative company.

Demonstration of Entrepreneurial Leadership- The Infrastructure Innovations

Mumtaz & his team turned into real innovation and technology up-gradation / BPR in the company. He prepared a list of imported materials in the company & challenged team for the development of substitution. Success story started unfolding bit by bit, step by step, inspiring lectures of self-made Professor of Practice acting as a catalyst. Soon the number crossed 10 import substitutions making a positive impact on people mind, organization's sale, cash flows, bottom line figures and higher management trust in team's ability to deliver.. New materials were developed, tools were reverse engineered, high precision machines were designed, locally fabricated & installed, processes were developed and production was increased from 20 to 100%. Thus Company / Pakistan was able to save billions of rupees over the years through Indigenization Initiative started in 2003.

Demonstration of Entrepreneurial Leadership- The Product Innovations

After crossing over successfully the *“surviving phase”*, Mr Mumtaz & Team shifted gears towards *“Thriving Phase”* with further product innovations. Again he prepared a list of potential products being imported in Pakistan related to the company production line. His innovative and now experienced team, work hard to prioritize substitution of a few critical products. The new challenge of increasing product range of the company was given to team backed by continuous Brain Storming session.... *“We Can Do It Belief & Excel & Self Pride”*.

This was a bigger and multifaceted target now. The product, the process & complete assembly line has to be developed locally & quality compliance of highly specialized products must meet International Standards.

The team went through a series of experiments, failures & successes & ultimately the company was on road to innovate products. The range crossed 10 products with high market demand, low cost, meeting international standards and is being produced in the local plants of the company. The production was further increased from 10 to 50%. In a short period of 16 years company become a National Leader in specialized products. The number of products increased much folds, employee strength increased significantly resulting increased sales, sustained cash flow, net profit increased & management ensured distribution of benefits across the board.

Biafo ensured supply of many previously imported products to National & Multinational companies involved in National Development Sectors. Products are also being exported to many countries contributing to national foreign exchange reserves. Customers are very happy & excited due to Quality, Cost-effectiveness & timely Delivery as the company applies JIT Philosophy. Now the company is in a position to deliver products in 24 hours.

The exceptional progress achieved by the company resulted in winning prestigious awards at national & international levels. For example... *“Leadership in Quality Award by BID, France, A Role Model Company in Pakistan by APO, Tokyo, Japan for Quality & Productivity Improvement, SATHA Innovation Award and Winner of Top 25 Companies of Pakistan Award from Karachi Stock Exchange for consecutive four years”*.

The Summary

Mr Mumtaz Ud Din used the social and soft side of associates to lead the culture of innovations. His case study proves that hard skills related to engineering, tooling, machining and material composition can be acquired. The first task of an innovation manager is developing Positive Attitudes towards life & work that are pre-requisites for innovation.

He advocates for working on the self-belief system of the employee. He advises developing innovation incentive system in the organization. He thinks that output & revenue enhancement is the lagging components i.e. the outcome of the leading ones such as employee empowerment, development, recognition and innovation and technology.

Managers must exhibit exemplary attitude for creating an environment of trust & confidence with the openness that results in **OWNERSHIP** attitude & ensuring progression of any organization.

Mr Mumtaz incorporated innovation DNA in the social structure of the organization and succeeded.

*Negah boland, sohan dilnawaz, jaan pursoz
Yahe hay rahtay saffar, mir e karwan kay liyay...
Maana ke iss jahaan ko gulshan na kar sakay
Kaantay to kuch hatta diyay, guzray jedhar say ham....*

Indigenization Initiative & Impressive Volume of Work Achieved By Biafo Family (Improvement Journey Started in 2003)

- Designing, fabrication & installation of three Distillation Units for self-reliance for manufacturing of strategic material as part of self-reliance drive
- Development of Delay Detonators for mining, quarrying, construction & hydropower projects
- Development of High Precision Seismic Detonators for seismic survey used in oil & gas exploration, carried out by National & Multinational companies
- Designing, Indigenous fabrication & installation of Lean Assembly Line for Binel production specialized requirement for tunnelling work
- Designing & Standardization of new formulations of S.Blaster EXP-II, S.Breaker-100, Info special & Seismic Hard for Strategic projects like Lowari Tunnel, Bhasha Dam, Saindak Copper & Gold mines & Oil & Gas exploration sectors etc
- De-ionized water production at our boiler house for manufacturing of initiators
- Development of Cross laminated film from local trade market to stop costly imports from EU & USA

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- Development of PC 24/4 & 24/5 from Faisalabad trade market to stop costly import from Korea
 - Development of Al wire of required specs for clipping from Gujranwala trade market to stop costly imports from EU & USA
 - PD capacity enhancement from 16500 ~ 42500 / day by applying Kaizen / Lean Manufacturing Assembly Line just costing Rs. 475,000/-
 - Key Product capacity enhancement from 15 ton ~ 24 ton/day by applying Kaizen
 - S.B-100 capacity enhancement from 4.5 ton ~ 32 ton/day by applying Kaizen
 - Conversion of two discarded SF manufacturing machines into dual machines for DC manufacturing machines to enhance capacity from 5000m ~ 10,000m / day
 - Development of automatic Identification & Traceability System at critical manufacturing unit from available resources
 - Rehabilitation of two obsolete / discarded 1940 model tube drawing machines for self-reliance to stop costly imports from China
 - Up-gradation of DOS-based PLC with Window based PLC (sourced from the containerized market) for the critical process of highly exothermic reaction
 - Designing & fabrication of critical spare parts for Katridge Packing Machine form Gujranwala trade market
 - International Color Coding Scheme for process hazard identification & safe operations
 - Energy conservation initiative resulted in saving of millions over the years

Conclusion

The leaders are born or trained in the rich academic debate growing over the passage of time. Our directory belongs to the leaders who make innovation happen. They are outstandingly high performing professionals with substantial execution skills.

These people have also shared common belief in efforts to improve the lives of others. Therefore they were able to connect their ideas with social needs. They converted their ideas into interventions and improved the situation in the society. The ability to translate ideas into tangible developments made them entrepreneurial leaders.

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ENTREPRENEURIAL LEADERSHIP

MAKING INNOVATION HAPPEN

The stories of

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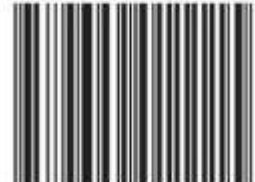
Entrepreneurial Leaders
who impact through their
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A digital publication by

Satha
South Asian Triple Helix Association

ISBN 9789699011115



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