

Key Factors to Promote Knowledge Sharing in Karachi Pharmaceutical Industry

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Abstract

The basic cause of this study is to investigate the key factors to promote knowledge sharing in Karachi Pharmaceutical Industry. Organizational employees are the main part for the effective performance of overall business and need to communicate proper information and knowledge from management as well as between employees to perform better task and to maintain a level of satisfaction and it is possible through effective knowledge sharing system. Several published studies are available in this matter to highlight the importance of knowledge sharing with observing the different industries. To get done the goal of this study, a close ended type questionnaire by the approach of Likert scaling were prepared for the collection of data with sample size of about 110-130 from different national and multinational pharmaceutical companies of Karachi and contacted to the employees of lower to top management of head office staff, sales and production people having the qualification up to masters. The results are showing that main factors are Organizational Culture and Organizational Structure which are important to maintain the level of knowledge sharing thus helping organization to make improvement in this regard. This study is limited only to the Karachi pharmaceutical industry due to time and cost and recommended for further research in other cities of Pakistan with special reference to pharmaceutical industry for knowledge sharing.

Key Words: Knowledge Sharing, Karachi Pharmaceutical Industry.

1. Introduction

If we talk about this 21st century, so we must have to say that “Knowledge is success and success is knowledge”. Reason, the more you have relevant knowledge the more you will be effective. Let’s move to the knowledge sharing. In today’s tough business atmosphere knowledge sharing is one of the core element for success which builds a team work within individuals as well as within departments through proper alignment on the basis of knowledge sharing. On the basis of two grounds the main idea was presented in the paper that transferring the knowledge between peoples and between the groups within the company is the necessary for making the knowledge sharing. Knowledge sharing secondly is the key basis to gain the advantage the in the market between competitors. Exchange of healthy knowledge between associates is very helpful and an important feature to develop a competitive advantage. Now the main query is how can the firms arrange an effective system of knowledge sharing (Cabrera, & Cabrera, 2002).

In the competitive advantages of the firms it is to be noted that some behavior of Organization as well as the decision taken by humans are very important. Additionally, transferring of the knowledge and the creation of new ideas via one unit to another (for example between groups or different departments) plays the key role of success and experience shares through processes between units practically with healthy communication for the improvements of the defined and futuristic systems (Argote & Ingram, 2000). If we talk about the Bangladesh and India, these countries are also emphasis on the knowledge sharing whether the organization is manufacturing or a service organization. People of cross cultural areas are also facilitate through knowledge sharing and the Culture, Leadership, trust are the main factors of knowledge sharing (Islam, Ahmed, Hasan, & Ahmed, 2011).

Knowledge sharing from top to the bottom, from Management to the associates, from groups to the individuals is required for the overall exchange of knowledge. Proper system is very effective to decrease the cost of communication and to increase the better understanding of the culture which is integral part of success. Effective Organizational Structure is another key of efficient knowledge sharing. Here we cannot forget the impact of employee's perception which affects a lot to the knowledge sharing and if employees not prefer to share and work alone with the thinking that they are experts of their field these can be a strong hurdle. However proper motivational techniques can play a vital role to remove these hurdles and can develop a healthy relationship among people (Gazor, Koohkan, Kiarazm, & Aમેલેહ, 2012). In the banking industry of Pakistan and the other service industries, knowledge sharing is become an important element to enhance the performance. (Abbas, Rasheed, Um-e-Habiba, & Shahzad, 2013).

Several researches have published regarding the importance and many are under process to investigate that how we can improve the performance of business of health care companies. Many healthcare Companies claims that they are the knowledge-intensive companies and with refine the knowledge sharing process performance can be improve (Mura, Lettieri, Spiller, & Radaelli, 2012). To enhance knowledge sharing, Information and communication technology (ICT) is the valuable tool which is reducing the gaps between individuals and groups (Hendriks, 1999). It is also valuable for convert survival into success by understanding the process of knowledge management among the associates (Bircham-Connolly, Corner, & Bowden, 2005).

1.1 Problem Statement

The basic cause of this study is to investigate the key factors to promote knowledge sharing in Karachi Pharmaceutical Industry.

1.2 Research Objective

In Knowledge sharing, several studies have already been published but nobody touched the pharmaceutical manufacturing industry as per our knowledge related to the area of the Pakistan that is created the need of this study.

1.3 Scope of Study

With the help of this study, we will able to know the current situation of knowledge sharing practices, implementations and effectiveness in Karachi pharmaceutical industry and it will also helpful to take required corrective actions with the help of analysis for future improvements in in this matter.

1.4 Hypothesis

To study the key factors the following research question is proposed:

“What are the key factors to Promote Knowledge Sharing in Karachi Pharmaceutical Industry?”

In relation to above research question the following set of hypothesis have been formulated:

- H1:** Organizational Culture has no significant impact on Knowledge Sharing
- H2:** Motivation Method has no significant impact on Knowledge Sharing
- H3:** Organizational Structure has no significant impact on Knowledge Sharing
- H4:** Employees Perception has no significant impact on Knowledge Sharing
- H5:** Trust has no significant impact on Knowledge Sharing

2. Literature Review

Information is the important source of the organization which helps to sustain in the market between competitors by developing a healthy competition. It is very useful and mandatory for organizations to achieve the organizational objectives via proper staffing and trainings system. It is very necessary for the organizations to create an atmosphere of knowledge sharing with the help of experts for the associates who need these skills of effective knowledge sharing. In this 21st century, knowledge exchange is the element of high value among the all organizational individuals (Aliakbar, Yusoff, & Nik Mahmood1, 2012).

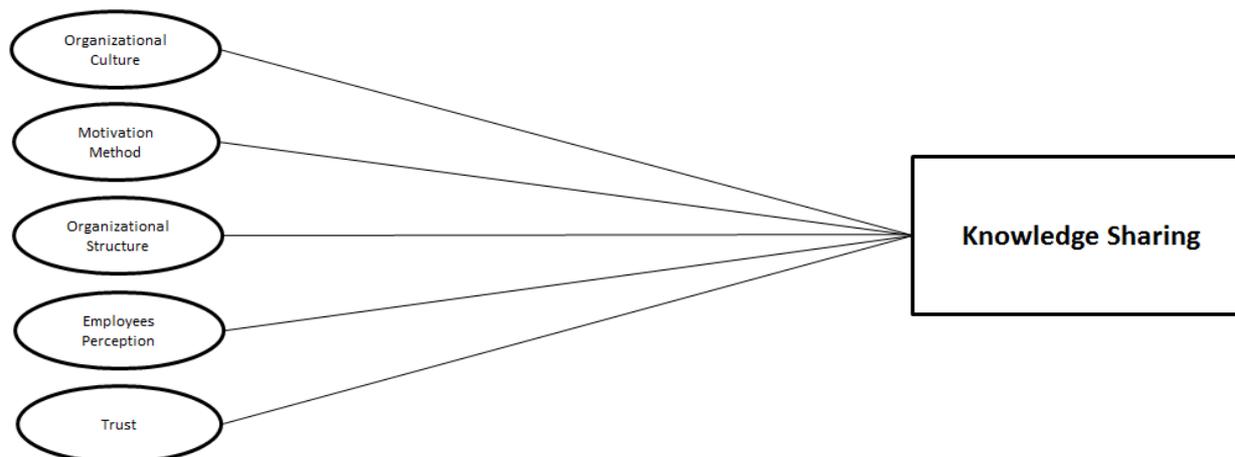
Knowledge sharing is the joint sharing between the two knowledge holders if we generally speak and to maintain a healthy relationship in the context of exchange of knowledge it is keenly influence for the smooth execution of business (Scarso & Bolisani, 2011). It is very important to develop the system of advance equipment and technology to facilitate the knowledge sharing in the whole organization because effective communication between members of organization is an integral part for the knowledge exchange culture (Zamiri & Baqutayan, 2012). Know sharing is an important knowledge management tool to manage the web logging and to exchange the ideas specially to enhance the associate inputs for sharing the ideas with their personal expertise about their area of work. In the culture of knowledge sharing, peoples do not feel hesitation and voluntary create a platform where everyone is free to share information and the three categories are important i.e. fairness, identification and openness which promote to the behavior of ideas exchange (Yu, Lu, & Liu, 2010). These are the several problems which are facing the students like centralized structure of organization, excessive work, lacking of trust, lacking of motivation, and unavailability of knowledge sharing and knowledge receiving behavior among teachers if we talk about educational institute which is the barrier in the process of knowledge sharing and the creation of knowledge (Younas, Akram, Shahzad, & Zainab, 2012). Now the business is not dependent on the limitation of national boundaries and for the healthy competition with competitors, organization must have to maintain the level of knowledge sharing efficiently. Insufficient methods and improper information system can cause the failure to achieve business objectives (Jabar, Yeong, & Sidi, 2012).

In the several ingredients of success, knowledge sharing is the core element of the recipe and in the scenario of today's business, the 4 managers of the different firms also have realized it is importance for the growth (Zanjani & Mehregan, 2009). Banks are also realizing the value of knowledge sharing end in the favor of develop a culture of sharing and also encouraging the innovative ideas for better business performance which is also a tool of motivation which will impact of overall business performance (Tan, Lye, Ng, & Lim, 2010). Currently more resources are needs to invest in knowledge management to gain the share of market and organizations investments are increasing to make the difference between competitors (Hopple & Orhun, 2006). Some studies of recent editions discussed the multiple dynamics and impacts of knowledge sharing in the context of innovation. Many researches are linked to the performance of organizations and innovation (Wang & Wang, 2012).

Tacit knowledge is another way from different ways of knowledge sharing. It is not necessary to use special tools and equipment for effective sharing but if Organization has an effective culture then it can be done via tacit knowledge and not need to be written down. The efficient culture, trust are the features of tacit knowledge (Cowan, David, & Foray, 2000). Innovative ideas those Organizations creates which has the system to create new ideas and those Organizations who encourages the innovation but if people create new ideas and keep that in their mind and not share with other peoples then it is useless. People have to share these ideas with other for implement through knowledge sharing (Nieto & Perez-Cano, 2004). Performance and knowledge sharing are linked with each other. Performance will be impacted in the absence of improper knowledge sharing (Marques, Cardoso, & Zappalá, 2008).

In the context of atmosphere of Bahrain, some important factors are the trust, IS (information System), rewards, communication and the overall structure of the Organization for promote knowledge sharing. As per tradition of Bahrain, religious factor of Arab is influenced which describes the behaviors of the people so accordingly in this scenario organizations can develop relative knowledge sharing strategies (Al-Alawi, Al-Marzooqi, & Mohammed, 2007). 21st Century is the era of technology, the systems of E-government is expanding rapidly. To provide better and fast services, organizations are adopting every possible idea to meet the standards of today's challenging world whether by way of World Wide Web, and many other tool for digitalization for transfer the knowledge and to make the difference in the performances which is the demand of challenging environment (Kim & Lee, 2004). In the world of today's atmosphere, knowledge is the power to drive the economy, it is the tool of success and enhancing the knowledge sharing is helpful to achieve organizational goals.

2.2 Research Model



3. Material and Methods

3.1 Research Methodology

Details of research methodology are as follows containing the response rate, population & sampling, technique, instruments and analysis plan.

3.2 Population and Sample

To accomplish the goal of this study, we selected pharmaceutical industry of Karachi as sampling unit.

With the help of purpose sampling methods, we used the following:

- **Karachi Pharmaceutical Industry.**
- **We approached different companies on the basis of national & multinational Head office employees, Sales people and production people.**

Sample sizes of 110-130 Questionnaires were prepared (from national company head office employees, multinational company head office employees, employees of sales & production employees of different companies).

We visited to our selected points which we finalized through sample technique and collected data from them. Our participants as respondent has different designations, qualifications, nature of work and departments including males and females which are as follows:

- Head of departments (Quality, Technical Transfer, Business Development and Regulatory Affairs, Finance, Marketing, etc.)
- Managers of departments (Marketing, Sales, Production, IT, Services, Supply Chain Management, Strategic Management, Training & Development, Sales Force Excellence, Sales etc.)
- Assistant Managers and Executives of different departments (Regulatory Affairs, Sales Force Support, Key Account Management, Finance, Sales etc.)
- Officers of different departments (Procurement, Sales, administration etc.)
- Labor (Production, Quality Assurance, Packaging etc.)

3.3 Investigation Technique

We used technique of primary data collection with the help of questionnaire.

Close ended type questionnaire with the approach of Likert scaling was prepared for the collection of data.

Scaling is consisted from 1 to 5 i.e. 1 = the lowest level of agreement and 5 = the highest level of agreement:

3.4 Instrumentation

In our questionnaire, we used following dependent, independent and demographic variables which is collected from reference articles:

- Knowledge Sharing (KS) - Dependent
- Organizational Culture (OC) - Independent (Latent Variable)
- Motivation Method (MM) - Independent (Latent Variable)
- Organizational Structure (OS) - Independent (Latent Variable)
- Employees perception (EP) - Independent (Latent Variable)
- Trust (T) - Independent (Latent Variable)
- Demographic
 - o Age
 - o Education
 - o Total Experience
 - o Gender
 - o Marital Status

Knowledge Sharing (KS) - Dependent Variable		Reference Article
Following items are representing to Knowledge Sharing		Gazor, Koohkan, Kiarazm, & Ameleh, 2012; Kim & Lee, 2004
1	Majority of documents, information employees can freely access in organization.	
2	Know-how and knowledge Employees voluntarily shares with each other.	Gazor, Koohkan, Kiarazm, & Ameleh, 2012; Lin, 2008; Kim & Lee, 2004
3	Various databases frequently use to improve quality of operation flows involving your and other departments.	
4	Your department encourages employee recommendations, exchange of experience with other departments for betterments.	
5	Knowledge and experiences have exchanged on various occasions between different departments.	

Organizational Culture (OC) - Independent Variable 1		Reference Article
Following items are representing to Organizational Culture		Gazor, Koohkan, Kiarazm, & Ameleh, 2012
1	Organizational culture is friendly.	
2	There is a culture to use effective technologies to facilitate knowledge sharing.	
3	Cooperative culture between organization's employees.	

Motivation Method (MM) - Independent Variable 2		Reference Article
Following items are representing to Motivation Method		Lin, 2008; Gazor, Koohkan, Kiarazm, & Ameleh, 2012
1	Your department emphasizes material incentives to increase staff morale.	
2	To increase morale, department emphasizes the importance of a bonus policy.	
3	The most important form of income is salary, wages for employees in your department.	
4	Department appreciates employees in public on problem-solving proposals.	
5	Department focuses on importance of quality work in performance reviews.	

Organizational Structure (OS) - Independent Variable 3		Reference Article
Following items are representing to Organizational Structure		Gazor, Koohkan, Kiarazm, & Ameleh, 2012; Al-Alawi, Al-Marzooqi, & Mohammed, 2007
1	Decision-making method is participative in organization.	
2	Information flow is easy in organization.	
3	Cross-functional teams are exists in organization.	

Employees Perception (EA) - Independent Variable 4		Reference Article
Following items are representing to Employees Perception		Gazor, Koohkan, Kiarazm, & Ameleh, 2012; Jiacheng, Lu, & Francesco, 2010; Fishbein & Ajzen, Belief, 1975; Fishbein & Ajzen, 1981; Bock, Lee, & Zmud, 2005
1	My knowledge sharing with other team members is an enjoyable experience.	
2	My knowledge sharing with other team members is valuable to me.	
3	My knowledge sharing with other team members is a wise move.	
4	My knowledge sharing with other organizational members is good.	
5	My knowledge sharing with other organizational members is harmful.	

Trust (T) - Independent Variable 5		Reference Article
Following items are representing to Trust		Gazor, Koohkan, Kiarazm, & Ameleh, 2012; Kim & Lee, 2004
1	Employees have full confidence in the skills of their co-workers.	
2	Employees do not try to mislead their co-workers for their own profits.	
3	If employees got into difficulties at work, they know their co-workers would try and help them out.	
4	Employees trust expertise of their co-workers.	

Reliability Statistics

Cronbach's coefficient alpha used to check the reliability and results are as follows:

	Cronbach's Alpha	N of Items
Knowledge Sharing:	0.788	5
Organizational Culture:	0.811	3
Motivation:	0.769	5
Organizational Structure:	0.646	3
Employee perception:	0.689	5
Trust:	0.778	4

3.5 Data Collection Method

In data collection method, we prepared approach of primary data collection through questionnaire.

3.6 Data Analysis Plan

- To verify effects of multiple factors, Multiple Linear Regression we used through SPSS for Data Analysis Plan.

3.7 Response Rate

We collected data from 122 completely filled Questionnaire out of 130 Questionnaires which is 93.84% and it is sufficient.

4. Results and Discussion

Our research results with tables, findings and discussions are as follows:

4.1 Summary of Tables

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810 ^a	.656	.641	.461
2	.807 ^b	.652	.640	.461
3	.806 ^c	.650	.641	.461
4	.801 ^d	.642	.636	.464

- a. Predictors: (Constant), Trust, Organizational Structure, Employee Perception, Motivation Method, Organizational Culture
- b. Predictors: (Constant), Trust, Organizational Structure, Motivation Method, Organizational Culture
- c. Predictors: (Constant), Organizational Structure, Motivation Method, Organizational Culture
- d. Predictors: (Constant), Organizational Structure, Organizational Culture

R is defining the strong relationship in Model Summary

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.865	5	9.373	44.164	.000 ^b
	Residual	24.619	116	.212		
	Total	71.485	121			
2	Regression	46.585	4	11.646	54.724	.000 ^c
	Residual	24.900	117	.213		
	Total	71.485	121			
3	Regression	46.445	3	15.482	72.958	.000 ^d
	Residual	25.040	118	.212		
	Total	71.485	121			
4	Regression	45.886	2	22.943	106.655	.000 ^e
	Residual	25.599	119	.215		
	Total	71.485	121			

a. Dependent Variable: Knowledge Sharing

b. Predictors: (Constant), Trust, Organizational Structure, Employee Perception, Motivation Method, Organizational Culture

c. Predictors: (Constant), Trust, Organizational Structure, Motivation Method, Organizational Culture

d. Predictors: (Constant), Organizational Structure, Motivation Method, Organizational Culture

e. Predictors: (Constant), Organizational Structure, Organizational Culture

As per above table of ANOVA. Sig value is mentioning .000 which means that the model is significant. R Square is significant

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.556	.229		2.425	.017	
	Organizational Culture	.448	.087	.531	5.171	.000	.281 3.553
	Motivation Method	.157	.097	.156	1.618	.108	.318 3.148
	Organizational Structure	.149	.077	.149	1.940	.055	.503 1.989
	Employee Perception	-.109	.095	-.095	-1.150	.253	.435 2.298
	Trust	.120	.097	.124	1.232	.220	.295 3.385
	(Constant)	.456	.213		2.147	.034	
2	Organizational Culture	.460	.086	.546	5.352	.000	.286 3.497
	Motivation Method	.130	.094	.130	1.381	.170	.337 2.967
	Organizational Structure	.133	.076	.133	1.757	.082	.521 1.921
	Trust	.071	.088	.073	.811	.419	.365 2.741
3	(Constant)	.491	.208		2.363	.020	
	Organizational Culture	.491	.077	.583	6.399	.000	.358 2.797
	Motivation Method	.149	.092	.148	1.623	.107	.357 2.799
	Organizational Structure	.141	.075	.141	1.887	.062	.530 1.886
4	(Constant)	.601	.198		3.035	.003	
	Organizational Culture	.569	.061	.675	9.389	.000	.582 1.717
	Organizational Structure	.177	.072	.177	2.468	.015	.582 1.717

a. Dependent Variable: Knowledge Sharing

Above table is representing the following understandings:

1. Change of 1 unit (20% i.e. 1/5) In Organizational Culture it brings 0.675Unit (13.5% i.e. 0.675/5) positive change in Knowledge Sharing.
2. Motivation Method is not affective and not significant to increase Knowledge Sharing.
3. Organizational Structure is also important and if we change 1 unit (20% i.e. 1/5) in Organizational Structure it brings 0.177 Unit (3.5% i.e. 0.177/5) positive change in Knowledge Sharing.
4. Employee Perception is also not affecting positively to increase Knowledge Sharing.
5. Trust is not important to enhance Knowledge Sharing.

Two variables Organizational Culture and Organizational Structure are important to focus to increase Knowledge Sharing.

VIF values are describing for both above factors that there is no issue of Collinearity.

The main variable among the both is Organizational Culture having the beta value of 0.675 (higher than Organizational Structure) and it is positive impacting highly on Knowledge Sharing.

4.2 Hypothesis Assessments Summary

Sr. No.	Hypothesis	T	Sig.	Rejected / Failed to Reject
1	Organizational Culture has no significant impact on Knowledge Sharing	9.389	0.000	Rejected
2	Motivation Method has no significant impact on Knowledge Sharing	1.623	0.107	Failed to Reject
3	Organizational Structure has no significant impact on Knowledge Sharing	2.468	0.015	Rejected
4	Employees Perception has no significant impact on Knowledge Sharing	-1.150	0.253	Failed to Reject
5	Trust has no significant impact on Knowledge Sharing	0.811	0.419	Failed to Reject

5. Conclusions and Recommendation

This research is focused on Pharmaceutical Industry with special reference to the area of Karachi and we analyzed the Key Factors to Promote Knowledge Sharing in Karachi Pharmaceutical Industry. The findings showed that among the all factors i.e. Organizational Culture, Motivation Method, Organizational Structure, Employee Perception and Trust there two main factors which are impacting on Knowledge Sharing and can play the role to increase knowledge sharing positively.

I recommend to adopt practices to make better the Organizational Culture and Organizational Structure that will be the core elements to enhance effectively the Knowledge Sharing and it will be resulted in overall better business performance.

5.1 Limitation and Future Research

Due to specific time and cost this study is covering the only pharmaceutical industry of Karachi but in future, this research can be expand to check Key Factors to Promote Knowledge Sharing in other areas of Pakistan. In future studies, other factors can also be investigated to check the knowledge sharing with special reference to pharmaceutical industry. Additionally, future research can also be started in other manufacturing industries of the Pakistan for knowledge sharing.

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Appendix I

Questionnaire

Dear Respondent,

You are kindly requested to respond to the statements in the following questionnaire.

The statements are related to the **life in pharmaceutical industry**.

Your responses are of great importance as this survey forms part of a study of the aspect mentioned above. I therefore value your co-operation very highly.

On the following page you will find a shortlist of questions.

Please check mark () to the answer that you think is the most suitable.

It should not take you more than 10-15 minutes to complete the entire questionnaire.

Please ensure that you respond to every question.

I am strongly interest in your personal opinion. The “right” answer to any question is your frank and truthful response.

Your answer will be treated as **Strictly Confidential** and will only be used for research purposes.

Your name should not appear anywhere on this document.

Sr	Questions	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	Majority of documents, information employees can freely access in organization.					
2	Know-how and knowledge Employees voluntarily shares with each other.					
3	Various databases frequently use to improve quality of operation flows involving your and other departments.					
4	Your department encourages employee recommendations, exchange of experience with other departments for betterments.					
5	Knowledge and experiences have exchanged on various occasions between different departments.					
6	Organizational culture is friendly.					
7	There is a culture to use effective technologies to facilitate knowledge sharing.					
8	Cooperative culture between organization's employees.					
9	Your department emphasizes material incentives to increase staff morale.					
10	To increase morale, department emphasizes the importance of a bonus policy.					
11	The most important form of income is salary, wages for employees in your department.					
12	Department appreciates employees in public on problem-solving proposals.					
13	Department focuses on importance of quality work in performance reviews.					
14	Decision-making method is participative in organization.					
15	Information flow is easy in organization.					
16	Cross-functional teams are exists in organization.					
17	My knowledge sharing with other team members is an enjoyable experience.					
18	My knowledge sharing with other team members is valuable to me.					
19	My knowledge sharing with other team members is a wise move.					
20	My knowledge sharing with other organizational members is good.					
21	My knowledge sharing with other organizational members is harmful.					
22	Employees have full confidence in the skills of their co-workers.					
23	Employees do not try to mislead their co-workers for their own profits.					
24	If employees got into difficulties at work, they know their co-					

4	workers would try and help them out.					
2 5	Employees trust expertise of their co-workers.					
2 6	Your Age	<=25	26-30	31-35	36-40	=> 40
2 7	Your Education					
2 8	Your total years/months of working experience					
2 9	Gender					
3 0	Marital Status					

Thank you very much to answer on above questionnaire.

Biography:

Muhammad Zubair is currently Manager Regulatory Affairs at Eli Lilly and Company in Pakistan. Apart from being associated with corporate sector for past 4 years, he has also entered the academic sector by making significant contribution through good quality researches. Muhammad Zubair has completed his M-phil from INDUS University Karachi, Pakistan, in the field of Management Sciences.

Nawaz Ahmad has been associated with the teaching profession from past 15 years by teaching various subjects such as Finance, Econometrics, Economics and Research Methods in different Universities of Karachi; in 2007 he was associated with Greenwich University as Assistant Professor, Head of Research and Editor of Greenwich Multidisciplinary Research Conference (GMRC) on Management, Social, and Physical Sciences. Whereas now he is the Assistant Professor & Head of Research and Publication of Business Administration and Commerce department of Indus University as well as the Editor of IJMS (Indus journal of Management Sciences). Thus being associated with research he has make his name not only nationally but also internationally by publishing various articles in the field of Management Sciences which could be accessed at https://www.researchgate.net/profile/Nawaz_Ahmad3/?ev=hdr_xprf

<http://ssrn.com/author=1317279>, <http://scholar.google.com.pk/citations?user=XO3bNioAAAAJ>

He has completed his M.S from SZABIST, Karachi, Pakistan in the field of Management Sciences (Financial Economics) and also completed his PhD course work . Currently working on Dissertation of his PhD

Rizwan Raheem Ahmed holds a PhD degree in Marketing (Pharmaceutical Marketing) from HAMDARD University, Karachi, Pakistan and currently is the Business Unit Head of S.J & G. Fazul Ellahie (Pvt.) Ltd, In addition he has been associated with academic Profession by teaching in numerous Universities of Pakistan along with that he has made further contributions by publishing various article in the field of Management Sciences in both National and International Journals.

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