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DISCOVERING THE INDEPENDENCY OF SUFISM IN ISLAMIC SCIENCES: THIRD CENTURY IN HISTORICAL ANALYSIS

Dr. Muhammad Shahid Habib

Assistant Professor of Islamic Studies/Comparative Religions, Institute of Humanities & Arts,
Khwaja Fareed University of Engineering & IT South Punjab, Pakistan.

Email: shahidhbeeb@gmail.com

Muhammad Mubashir Saleem

M.Phil. Scholar Islamic Studies, KFUEIT, Rahim Yar Khan. Email: fmsaleem558@gmail.com

Abstract

Motivated and inspired by claim of a third century Sufi, Abu al-Qasim Junayd al-Baghdadi (d. 298/910) and his mystical school of thought that ‘Sufism is a science of religion with its own issues, methods and proofs’, curiosity has led to the interrogation on research problem of discovering Sufism as an independent systematic science. Answer to this question can, positively, be found in the historical analysis of third century AH. Sufism. It is a significant effort which will essentially overrule the “Aryan Reaction Theory” that declares Sufism an Indo-Persian product. According to this, Sufism has not grown independently and spontaneous. Instead, this theory proves certain resemblances between Sufi doctrines and some of the Indo-Persian systems, for instance, the Vedanta Sara. However, hypothesis of this research work supports ‘the Independent Theory’ which considers Sufism as an independent science of religion with entirely independent growth. Later influences cannot undermine the roots of originality and independency. Primarily, a documentary inquiry of the historical events will be chief method of research. Moreover, an analytical study of writings of the Sufis, both original and interpreted sources, from third century AH will be applied as research method for this academic study. In proving its independency, three major aspects will be discussed including independent Sufi Schools, separate authentic texts to the Sufi sciences and its own ijthihad on issues related to mysticism. Results of research inquiry show that Persian influence can only be proved in sixth century and no influence cannot be shown to be exerted from the latter century on the former one. In third century, three principal developments support to prove independency of Sufism as science of religion. Firstly, larger Sufi School had been developed in the same century e.g. the Baghdadi School of Ma’ruf al-Karkhi’s students including Sari al-Saqati (d. 254 AH), Junayd al- Baghdadi (d. 298 AH), Hareth al-Muhasibi (d. 249 AH) and Abu ‘l-Husayn alNuri (d. 295 AH) etc; the Khurasani School including Bish al-Hafi (d. 227 AH), Ibn Karram (d. 255 AH), Yahya Ibn Muadh al-Razi (d. 258 AH) etc ; The Damascene-Egyptian School of Dhul-Nun al-Misri (d. 245 AH), Abu’l Hassan Ahmad Bin Abi al-Huwari (d. 230 AH); and the Mulamti School of Nishapur which was represented by Abu Hamdun al-Qassar (d. 271 AH). Second development was that the authentic texts, which introduced certain terms and removed uncertainties, also appeared in this period. For instance, “Kitab al-luma” by Abu Nasr al-Sarraj al-Tusi and the book “Qut al-Qulub” by Abu Talib al-Makki (d. 386 AH) are the prominent one. Thirdly, its own ijthihad and independent perceptions on the issues led to the curse and wrath of jurists and theologians. This hostility against the Sufis continued to grow in Egypt, Syria and Iraq, and eventually, it had reached the point of accusing Sufis of takfir, and led to the persecution and even execution of Sufis in the case of al-Hallaj. All these developments prove the “Independent Theory” that Sufism emerged as an independent science of religion with its own issues and doctrines derived from Quran and Sunnah and represented the “Esoteric Doctrine” of the Prophet (SAW) like other sciences of religion in Islam.

Key Words: Sufism, Third Century AH, Science of Religion, Sufi Schools, Sufi Texts, Ijthihad, the Aryan Reaction Theory, The Independent Theory, Esoteric Doctrine

1. INTRODUCTION

The inspirational role of a third century Sufi, Abu al-Qasim Junayd al-Baghdadi (d. 298/910) in the development of ‘Sufism as an independent science of religion during 3rd century AH has provided

foundation to inquire this research problem how did Sufism develop as an independent systematic science during 3rd century AH? The role of 3rd Century AH is crucial to prove independent Theory. This research work is meant to answer this question, positively, with the help of the historical analysis of third century AH. Sufism

While following the logical order of events, this work is divided into two discussions. Firstly, the Esoteric Doctrine regarding origin of Sufism is highlighted and idea of developing Sufism in reaction of Indo-Persian influences (The Reaction Theory) is rejected. Although theme of the paper is related to 3rd century, but it must be remembered that roots of Sufism are in Qur'an and Hadith. The 3rd century Sufis strengthened this Esoteric Doctrine. Second discussion will be focused on supporting The Independent Theory regarding Sufism as an independent science of religion. In this discussion, the 3rd century AH provided three major developments which prove Sufism as an independent and separate science. These three developments are establishment of major Sufi schools, conflicts with jurists and theologians, and Sufi literature of that era to remove allegations and uncertainties.

2. RESEARCH METHODOLOGY

This research work is, primarily, based on documentary inquiry of the historical events with special reference to the 3rd century AH. Thus, library research and documentary analysis will be chief method of the research. Moreover, analysis of both primary (Arabic) and secondary (Urdu and English interpreted) sources is applied to prove developments required for discovering independent status of Sufism. Third Century AH is the timeframe to be followed for historical analysis so evolution of Sufism in different periods is not the subject matter of this research.

3. RESEARCH AND FINDINGS

Origin of Sufism: Esoteric Doctrine or The Aryan Reaction Theory

The debate about origin and source of Sufism is a natural question which will be addressed here in a brief manner before discussing the characteristics of independency of Sufism. There are two major perspectives on the origin of Sufism. First supports the 'Esoteric Doctrine' and proves its origin from Qur'an and Prophet Muhammad (SAW). (Ghosh & Mir, 2016, p. 75) On the other hand, some orientalist and Occidentalists consider Sufism as reaction to Indo-Persian mystical ideas. Thus, this group supports 'The Aryan Reaction Theory'.

Majority of the Sufi scholars believe that Sufism represents the 'Esoteric Doctrine of the Prophet (SAW)'. Browne (1929) reviewed various theories on the origin of Sufism and gave verdict in the favour of Esoteric Doctrine of Muhammad (SAW). Duncan Black Macdonald (1911) and Philip K. Hitti (1970) linked its origin with the Qur'an and Hadith. The seeds of Sufism were in the mind of Prophet Muhammad (SAW). Louis Massignon, a famous French scholar on Sufism also supports the origin of Sufism from Qur'an. The idea that 'Sufism is alien to Islam' was rejected by him. (Anjum, 2006, p. 230) Dr. Annemarie Schimmel (1975) also claims that the idea that Sufism was an Islamized practice of Vedanta philosophy or Yoga, has now been rejected. According to her, "Sufism traces its origin back to the Prophet of Islam and takes inspiration from the divine word as revealed through him in the Koran. (Schimmel, 1959; 1975, p. 348) Professor Khaliq Ahmad Nizami also supports the above mentioned point of view and rejects any idea of its origin from Greek, Vedantic or Buddhist philosophies. (Nizami, 1957; 1980, pp. 45-46) In support of Sufism as the Esoteric dimension of Islam, a number of Qur'anic verses and hadiths are cited such as such as God's alleged declaration, "I was a Hidden treasure and I desired to be known, therefore I created Creation that I might be known." (Bilqies, 2014, p. 64)

There is no doubt that various philosophical and religious ideas have been incorporated into Islamic Sufism, but the assumption that the source and origin of Sufism is not the Qur'an is baseless and unreasonable as it is presented by the 'Aryan Reaction Theory'. This theory proves certain resemblances between Sufi doctrines and some of the Indo-Persian systems, for instance, the Vedanta Sara. (Bilqies, 2014, p. 64) As well as similar arguments that Sufism, unlike Semitic religions and beliefs, is a product of the Aryan thought, or that Tasawwuf is a negative attitude of rebellion against the government and religion, as some scholars have expressed their views about this, simply imagination (not reality).

Dr. Abdul Hussain Zirreen Kob has identified such orientalists who were influenced by the apparent resemblance. These orientalists have made a scroll of speculations on the sources of Sufism. They also have influenced the Occidentalists of the East. Dr. Zirreen Kob has admitted this fact in very clear words that the source of Islamic Tasawwuf is Islam and the Qur'an. (Latifullah, 1990, p. 122) Among orientalists, E. H. Palmer (2013) declared Sufism as development of the religion of Aryan race.

In addition to him, Saeed Nafeesi is one of the distinguished teachers of Iran who have made great contributions to the subject of Sufism by doing research work. His work "Sar chashma-e-Tasawwuf dar Iran" is not only useful but also an important research work in terms of its subject matter. (Latifullah, 1990, p. 101)

Indeed, the Iranians were fully aware of Buddha and Buddhism during the Sassanid period and early Islamic period. As the inhabitants of Iran and India have lived since that time as the neighbours. The people of Aryan descent entered the countries where they now inhabit from the foothills of the Hindu Kush or Pameer. Their connection has never been broken and this is one of the reasons why the ideas of Hindi and Iranian Aryas have been connected and very close to each other at all times. Among the most important stages of this closeness, the first stage was that pre-Islamic Iranian thought was influenced by Buddhist beliefs and later Sufism became prevalent. As if this is the specific philosophy of Asian Aryans. (Latifullah, 1990, p. 103)

He declares that the Sufism of Iran is purely based on Aryan thought and has nothing to do with Semitic thought. Being Irani Sufism is rather an honour and pride. The main point about Iran's Sufism is that it has always been Tariqat, that is philosophical, not Shariat, that is, religion and practice.

It is clear from these statements that Sufism, according to Saeed Nafisi, is not a unified whole. Instead, the Sufism of each region is different and separate from each other in terms of certain characteristics. Therefore, the Sufism developed in the land of Iran is distinguished and unique from the Sufism of other Islamic countries, in the formation of which religions especially Buddhism has played an important role.

This point of view can only be agreed upon if Tasawwuf is considered an external force, as accepted by the Sufis of Iran as a historical coercion, rather than a religious and doctrinal attitude. Obviously, historical facts do not support such a view.

Islamic Sufism, despite its similarities with non-Islamic religions, is a permanent object. The source of Islamic Sufism is Islam and the Qur'an. There is no room for any doubt that the seeds of Sufism could not have been Persians. This conclusion is obtained from this discussion and this theory has been recognized by most of the research scholars in the present era. (Latifullah, 1990, pp. 125-126)

The reality of Islamic Sufism does not lie in the cultural and civilizational factors of different regions, but its basis is religious and religious. Saeed Nafisi probably forgot this fact in explaining his point of view. (Latifullah, 1990, pp. 105-106)

Sufism is based on this hadith of the Holy Prophet (SAW) in which the principles of beneficence are described with clarity and all the great Sufis, regardless of whether they belong to any land, agree on this. This consensus is the basis for Sufism being Islamic and Shariah. From this point of view, the regional and geographical division of Sufism can satisfy those who are regional, but in this case, there will certainly be a danger of distortion of a real view of the Islamic spirit, and perhaps even Islam cannot escape from this danger.

Independency of Sufism as Science of Religion and Significance of 3rd Century AH

The role of 3rd century AH is of an immense significance as it provided philosophical and practical ground for the support of Independent Theory about Sufism. According to that theoretical framework, Sufism witnessed its development and growth as an independent science without external help. (Bilqies, 2014) Its growth was not dependent on others except the Qur'an and Sunnah. Three major developments occurred during this century.

Firstly, during the 3rd Century AH, although uniformed Orders (*Salasil*) of Sufism, as they are present today, did not come into existence but different traditions and styles had been formed. Students used to join the famous Sufi schools and sheikhs for knowledge and training such as the Baghdad School of Sufism.

Secondly, Sufis provided their interpretations and used specific terms which in return created conflicts with jurists and theologians. They had to face criticism and persecutions as well. Thus, they moved to clarify

their interpretations more than before. Moreover, in contrast to the intellectual chaos that the tendency of rationalism had created in the nation, Sufis promoted the theory of love and thus protected the individual and collective life from disintegration.

Thirdly, in the same period, Sufis wrote such basic books to explain her religion and method in response to aggressive criticism, which not only proved to be helpful in the understanding of Sufism, but because of them, the external and internal structure of Sufism as a unity became clear. These works are still the guiding principles of Sufism, and they will continue to be so in the future.

1. Sufi Schools in 3rd Century AH

One of the most important developments which proves the independent status of Sufism as a science of religion was the establishment of larger Sufi School which had been developed in the 3rd century AH.

1. *the Baghdadi School* of Ma'ruf al-Karkhi's students including Sari al-Saqati (d. 254 AH), Junayd al- Baghdadi (d. 298 AH), Hareth al-Muhasibi (d. 249 AH) and Abu 'l-Husayn alNuri (d. 295 AH) etc;
2. *the Khurasani School* including Bish al-Hafi (d. 227 AH), Ibn Karram (d. 255 AH), Yahya Ibn Muadh al-Razi (d. 258 AH) etc ;
3. *The Damascene-Egyptian School* of Dhul-Nun al-Misri (d. 245 AH), Abu'l Hassan Ahmad Bin Abi al-Huwari (d. 230 AH);
4. and the *Mulanti School* of Nishapur which was represented by Abu Hamdun al-Qassar (d. 271 AH).

Baghdad was the spiritual and cultural capital of the Islamic world at that time. In this sense, it became a representative institution of Sufism in the Islamic world. The voice of this madrasa echoed in countries such as Syria, Egypt, Arabia, Africa, and Khorasan. This madrasa had consumed all the ancient and contemporary mystical ideas that were found within the Islamic world at that time.(Massignon, 1922; Qadir, 1988, pp. 96-97)

When Shaykh Abu Saeed ibn Al-Arabi (d.341 AH) wrote his book *Tabaqat al-Nussak*, he mentioned the first person who popularized science of Sufism. After that, he mentioned those people who came later. These people belonged to Basra, Syria, and Khorasan. He said that in the end, the school of Baghdad appeared. Al-Makki (d. 386 AH) says that the last person who taught Sufism was Junayd. He was blessed with the high qualities of wide vision and truthfulness of speech. And after that they hesitate to name anyone else in this connection.

The circle of Sufi school of Baghdad was located in the middle of the spiritual life of that time and in the middle of this spiritual circle of Sufi mentors and disciples, the personality of Hazrat Junayd alO Baghdadi was seen as the central point.(Qadir, 1988, p. 97)

It would be right to say that whatever Imam Shafi'i did for Islamic jurisprudence in his treatises, Hazrat Junayd al-Baghdadi did the same for Sufism in his treatises. Thanks to Imam Shafi'I's comprehensive understanding and knowledge and his extensive knowledge that made such a structure of the principles of Islamic jurisprudence that the future generations of jurists explained them with great pleasure, but they could not bring any change in them. In exactly the same sense, Hazrat Junayd al-Baghdadi is also considered as the founder of Sufism.(Qadir, 1988, p. 27)

2. Ijtihad by Sufis and Conflicts

There is no doubt that some sort of conflict between Ulama and Sufis is seen in every era of Islamic history but especially in the third century AH, this debate took a very serious form. Two incidents have been mentioned here with attention. One incident is related to the famous Sufi saint Hatim Asam (d. 237 AH) and Qazi Muhammad bin Muqatil, and the other is related to Imam Ahmad bin Hanbal (d. 241 AH) and Haris Al-Mahasabi (d. 243 AH).

The summary of the first incident is that Hatim Asam was going from Balkh for Hajj. While passing through the city on the way to Roy, it was learned that one of the scholars of the city, Qazi Al-Qadat Mahammad bin Muqatil, was ill. He arrived at his house to visit him. He saw that there is a grand corridor. He went inside and saw that there was a chain of flowers on one side, water was gushing from the fountain, there

were curtains in every room and there was a crowd of servants. The Qazi is resting on mattress. So Hatim Asam returned and expressed his grief over the life of this luxury.(Latifullah, 1990, p. 190)

The second incident is that the scholars, especially Hafiz Abu Zar'ah Razi (d. 260 AH) had taken a critical view on the books of Haris al-Mahasbi.(Melchert, 2001, p. 359) When it was discussed among the common people, Imam Ahmad bin Hanbal inquired into the situation. It was decided that Ismail bin IshaqIal-Siraj, who were also friend of Haris al-Mahasbi, would invite Mahasbi to a meal at his house and Imam Ahmad bin Hanbal would listen to Haris al-Mahasbi without coming forward. Khatib al-Baghdadi has written that after personal observation of Haris al-Mahasbi's condition, Imam expressed this opinion:

“I have not seen the similar to Haris's Companions and nor I have heard the discussion like this person's discussion on Ilm-ul-Haqaiq.”(Latifullah, 1990, p. 191)

In order to understand the main differences in this dispute, this statement of Hafiz Abu Zar'ah Razi is quoted, which is quoted by Munazir Ahsan Gilani. This statement would clarify the argument of Ulama against Sufis.

Hafiz Abu Zar'ah Razi elaborated that these books (of Sufis) are only self-created innovations and delusions. If someone was unable to get lesson from the book of Allah, he will not be guided by these books. People like Malik bin Anas, Sufyan Thawri, Awza'i or friends like them did not write books and discussed issues which were discussed by people like Haris in their books. So Sufis are working against the Ahl al-Ilam (class of scholars).(Latifullah, 1990, p. 191)

Hence, Sufism has been the target of the same type of hostile criticism in all eras, and even today the objections raised by scholars against Sufism. The main argument in them is the same as the point of the speech of Hafiz Abu Zar'ah Razi.

This conflict would reach its ultimate point when the tragedy of Hussain bin Mansur al-Hallaj (d. 309 AH/922 AD) occurred. This tragedy represented the ultimate exhibition of the tensions and confrontation between the Sufi movement theologians and jurists. (Abu Hanieh, 2011, p. 22; Malik, 1990)

In addition to this conflict, another major incident of conflict is the persecution of the Sufis at the hands of Imam Ahmad bin Hanbal's followers in an incident known as the trial of “Ghulam al-khalil”. In this incident, almost 70 Sufis, amongst them Sheikh of the Sect, Junayd al-Baghdadi, were sentenced to death but later released.(Abu Hanieh, 2011, p. 44; Melchert, 2001)

These incidents show that how the interpretations of Sufis and their ijthihad was different from jurists and theologians. Their interpretations were against the traditional interpretations. To clarify these terms and interpretations, the writings of 3rd century Sufis are crucial. Junayd al-Baghdadi, therefore, laid the foundation of Sufism on Tawheed and presented the idea of survival of senses (Sahw)-Subentry. These two pillars made Sufism aligned with Qur'an and Sunnah and closed the possibility of incidents such as persecution of Hallaj.

3. Sufi literature in 3rd Century AH

However, the harsh criticism on Sufis by Ahl-ul-Ilam (Ulama) took a serious form so Sufis turned to writing to explain and support their position. What was done by Sufis in this regard is of great value not only in the history of Sufism but also in the scientific history of Muslims.

In the writings of this cater, such criteria and principles have been established that there will always be a distinction between real and unreal Sufism. Apart from this, the importance of these works can be estimated from the fact that in the books and letters written by Sufis in the last seven or eight centuries, the principles and principles of these works have not been violated.(Latifullah, 1990, p. 193)

As far as the Sufi literature of 3rd Century AH is concerned, real representative documents of Sufism as religious science emerged. These works played a significant role in popularizing pure Sufi doctrines, debates, interpretations, and terminologies related to Tasawwuf. Moreover, these works were instrumental in removing uncertainties and un-Islamic influences. (Demirli, 2021, p. 27) In this regard, a brief description of these masterpieces is presented here.

First, the Letters of Junayd, *the Rasa'il-e-Junayd* are of an immense importance. These letters are preserved in manuscript no. 1374 at Istanbul. In recent years, a draft of the letters of Hazrat Junayd has been discovered. When the data that is present in Rasa'il is compared with the material that is found in other books, the three main issues come to light: First, with reference to these letters, the details of Hazrat

Junayd's beliefs become clear. Secondly, the position of Hazrat Junayd as an exceptionally unique and authentic figure of Sufi thought has not been recognized yet. These letters prove his stature. Thirdly, in these letters of Hazrat Junayd, his special and secret teachings are found, they were reserved only for the chosen people, the circle of Sufis only. (Qadir, 1988, p. 26)

These letters (*Rasa'il*) are the personal writings of a great Sufi of the 3rd century AH. These are written in a slightly common and local language, and in a slightly lofty and high-level language with a deep and mysterious style. It is a fact that his example is not seen in the entire Arabic literature. For present generation of the Islamic world, they are of great value as these are the clear paths in the early Sufi literature and development.

These letters reveal Hazrat Junayd's thoughts. In his writings, he explains the basic principles of Islamic Sufism and by linking Sufi thoughts and thoughts, paves a way for many generations of Sufis to follow.

Moreover, there are two other extraordinary books named (1) *Tabaqat al-Nussak* of Abu Sa'id Ibn al-Arabi (d. 341 AH) and (2) *Haqayyat al-Awliya* of Muhammad Ja'far al-Khaldi (d. 348 AH) were held in high esteem and were studied for many generations. These two books, unfortunately, are now extinct, but when we read other Arabic literature of that time and after that, we find quotations from these two books equally. (Qadir, 1988, p. 27) These two books are the original sources which the later writers used directly or indirectly. The great Sufis of this period have valuable information about their time, and about their individual and separate services in the evolution of Sufi teachings in the early stages. This evaluation is based on these two books.

Ibn al-Arabi (d. 341 AH) and al-Khaldi (d. 348 AH) were also considered authentic as Muhaddith in their time. Their authority was recognized not only in the hadith but also in the history of Sufism. Their books clearly explain that when these two sheikhs came to Hazrat Junayd, they had become accustomed to the restrictions of Hadith. Then they completely adapted to the truth, sincerity and spiritual point of view of their mentor Hazrat Junayd. (Qadir, 1988, pp. 20-21)

The author of *Kitab al-La'ma fi Tasawwuf*, Abu Nasr al-Siraj al-Tusi, who died in 378 A.H., was a student of Ja'far al-Khaldi. At one point he describes his relationship with Al-Khaldi in these words, 'during the days when I was studying under Jafar al-Khaldi, he told me one day that he heard Hazrat Junayd saying that fortunately this important book has been preserved from the hands of the events of time.' Thanks to the efforts of Nicholson and Arberry who completed this book by adding an important discovered component. Siraj has presented a complete and authentic outline of Hazrat Junayd's teachings and the state of his relationship with contemporary Sufis. Some of the more special sayings of Hazrat Junayd's letters are also preserved only in this book. The reason for this may be that the later writers were somewhat hesitant in interpreting Sufi sayings. Because even if these sayings were in a hidden and mysterious language, they could have been interpreted in such a way that their beliefs could be objected to. So this book of Siraj is so important in providing the interpretation of Sufi sayings. (Qadir, 1988, pp. 21-22)

In addition to these masterpieces on Tasawwuf, Abu Talib Muhammad bin Ali Atiya al-Makki (d.386 AH) was the author of *Qut al-Qulub fi Mu'amalat al-Mehboob* and student of Abu Saeed Ibn al-Arabi. A century later, the Sunni historian Khatib al-Baghdadi says about Al-Makki that he used to explain things about God in incomprehensible manner that his teachings were declared heresy and the people started to reluctant from his sermons. However, today when we study *al-Qulub*, we find in front of us the best writings about mystical expression, which is at the same time simple and emotional and spiritual. This book will remain a masterpiece of Arabic interpretation of Sufism. Imam Ghazali, who is a unanimous representative of Islamic thought, fully accepted al-Makki's teachings. His famous work *Ihya Uloom al-Din* may rightly be called a detailed and general edition of *Qut al-Qulub* by al-Makki. (Qadir, 1988, pp. 22-23)

Another important book on Tasawwuf is written by Muhammad bin Ishaq al-Kulabazi, a contemporary of al-Makki. He was a Hanafi scholar of jurisprudence and died in Bukhara in 388 AH. His book named *Kitab al-tar'uf li mazhab al-tasawwuf*, recently translated and edited by Professor Arberry, discusses the views and practices of the Sufis as they were known to him. (Qadir, 1988, pp. 23-24) It is important in the sense that the differences between the Muslim beliefs of Islam and the Sufi behaviour that were tried to resolve them. Thus, this book of Kalabazi is a source of Sufi ideas of the time and the first voice in favour of the justification of Sufi behaviour.

4. SUMMARY

Whole discussion can be summarized in the following points.

1. Like other Islamic sciences of religion such as jurisprudence atc, Sufism or tasawwuf derives its origin from the Qur'an and Sunnah so later influences cannot undermine its credibility.
2. Although Sufism has originated from primary sources, but during 3rd century AH, major developments transformed it into a comprehensive and independent science of religion.
3. Sufi schools of 3rd century AH especially the Baghdad school under mentorship of Junayd al-Baghdadi provided pure guidelines to the Sufis in particular. The sophisticated debates which were kept secret from common people made Sufis responsible.
4. Although conflicts occurred between Sufis and, jurists and theologians, especially the persecution of Mansur al-Hallaj, but overall Sufis transformed themselves into more responsible group. The use of terms became more specific and aligned with Qur'an and Sunnah.
5. The most important finding of 3rd century AH was the literature produced by leading Sufis. In particular, the letters of Junayd al-Baghdadi can be declared a revivalist and principal work for coming generations. These letters and treaties are tasawwuf can rightly be compared with Imam Shafi's *treaties* in the field of juris produce.

5. CONCLUSION

Demarcation of this discussion Leads to conclude that Sufis, without any discrimination, found roots of Sufism in Qur'an and Sunnah. Therefore, all of them started their books with the verses and hadiths in every era. Thus, majority of Eastern and Western scholars of the modern era also agree to the Esoteric Doctrine and Theory against The Reaction Theory on the origin of Sufism. The Sufis of 3rd Century AH eliminated all such voices of reactions. Moreover, three major developments regarding Sufism in 3rd Century AH approve the independent growth of this science of religion. These developments and their influence cannot be overruled. The share of 3rd Century AH in the development of this science is more than any Century except Qur'an and Hadith.

REFERENCES

- Abu Hanieh, H. (2011). *Sufism and Sufi orders; God's Spiritual Paths Adaptation and Renewal in the Context of Modernization*. Amman: Friedrich-Ebert-Stiftung.
- Anjum, T. (2006). Sufism in History and its Relationship with Power. *Islamic Studies*, 45(2), 221-268.
- Bilqies, S. (2014). Understanding the concept of Islamic Sufism. *Journal of Education & Social Policy*, 1(1), 55-72.
- Browne, E. G. (1929). A literary history of Persia, From the earliest times until Firdawsí:[to 1000 AD].
- Demirli, E. (2021). Sufism Becoming a Science of Religion: The Transformation Process of the Tradition of Ummism and Expansion of the Field of Objective Science. *Journal of Balkan Studies*.
- Ghosh, A. K., & Mir, S. A. (2016). A short introduction to origin, beginning and history of Sufism or Tasawwuf. *International Journal of Management and Applied Science Vol 2 Issue 2 Dec 2016*.
- Hitti, P. K. (1970). History of the Arabs. *New York: St. Martin's*.
- Latifullah, P. (1990). *Tasawwuf aur Sirriyyat (Sufism and Mysticism)* Lahore: Institute of Islamic Culture.
- Macdonald, D. B. (1911). *Aspects of Islam*. New York: Macmillan.
- Malik, K. N. (Ed.). (1990). *hussain Bin Mansur Hallaj*. Lahore: Sang-e-Meel Publications.
- Massignon, L. (1922). *Essai sur les origines du lexique technique de la mystique musulmane*: P. Geuthner.
- Melchert, C. (2001). The Hanābila and the early Sufis. *Arabica*, 48(3), 352-367.
- Nizami, K. A. (1957). Some aspects of khānqah life in medieval India. *Studia Islamica*, 51-69.
- Nizami, K. A. (1980). *Tarikh-i mashaikh-i Chist*.

Palmer, E. H. (2013). *Oriental Mysticism: A Treatise on Sufistic and Unitarian Theosophy of the Persians*: Routledge.

Qadir, D. A. H. A. (1988). *Junaid-e-Baghdad* (M. Kazim, Trans.). Lahore: Sang-e-Meel Publications.

Schimmel, A. (1959). The Origin and Early Development of Sufism. *Journal of the Pakistan Historical Society*, 7(2), 55-67.

Schimmel, A. (1975). *Mystical dimensions of Islam*: Univ of North Carolina Press.

THE IMPACT OF TRADE AND EXPORT ON ECONOMIC GROWTH: A PANEL DATA ANALYSIS OF BRICS COUNTRIES

Dr. Muhammad Umar Farooq

Department of Economics

Government College University Faisalabad, Pakistan

Email: Umarfarooq@gcuf.edu.pk

Dr. Syed Muhammad Abdul Rehman Shah

Basic Sciences and Humanities Department (BSD)

University of Engineering and Technology (UET), Taxila, Pakistan

Email: a.rehman@uettaxila.edu.pk

Dr. Noor Ullah

Islamic Culture Center Oslo Norway

Email: noorullahkhalid26@gmail.com

ABSTRACT

This study aims to estimate the impact of export on economic growth in BRICS countries by utilizing panel data over the time period from 1990 to 2017. Gross Domestic Product Per Capita (GDPPC), GDP (current US\$) and export earnings were used as dependent variables and independent variables included oil rents (percent GDP), imports (US\$), Export (US\$), Tax revenue (percent GDP), population growth, Government consumptions, food production, inflation consumer price, trade, trade openness, gross capital formation, foreign investment, and debt services in the study. Levin Lin Chu, I'm, Pesaran and Augmented Dickey-Fuller (ADF) unit root tests were employed to check the stationarity. Results found that some variables were integrated at different differences and others integrated at level indicating the use of Autoregressive Distribution Lag (ARDL) Model. Results were investigated in two phases. In the first phase, ARDL was used for analysis purpose, the findings of which revealed that a long-run relationship between Oil rents (percent GDP), Export (US\$), population growth, Government consumption, food production, inflation consumer price, trade, trade openness, gross capital formation, foreign investment, and debt services. Having limited natural resources, underdeveloped countries face low exports and as consequently less export earnings, hindering economic growth. In the second phase the Granger causality test was applied to examine the direction of causality between GDP per capita and export earnings. Our study found a positive relationship between export earnings and economic growth.

Key Words: *Economic growth; export; import; Gross domestic product (GDP); total population; ARDL model and Granger causality test.*

1. INTRODUCTION

Exports are a crucial component of a country's economy, as the sale of such goods adds to the producing nation's gross output (Koopman *et al.*, 2012). Export has a positive effect on the economic growth and an important source of foreign earnings, beneficial for the balance of payment and generates employment opportunities (Sun, 2018). Through different government policies based on export-led strategies, producers get more incentives to export their goods and services. The effect of external shocks on the domestic economy can be reduced by export and it helps to compete the world economy as exports are considered as an engine of the economic growth (Tsen, 2006). Export is the major component of GDP, creating positive externalities (Geossman and Helpman, 1991) and leads to expansion in every sector of production.

The export instability badly affects the economic growth (MacBean, 2012; Jung and Marshall, 1985).

FDI is an investment in the form of ownership in a business in another country. FDI has a positive effect on economic growth and financial sectors and Foreign Direct Investment (FDI) helps to improve export instability and economic growth (Zhang, 2001). Key benefits of FDI are an improvement in export human and physical capital, serve new

technological techniques and reduce imports in an economy. New markets with good management and skill are introduced by foreign trade.

GNP plays an important role in the development of a country. GNP depends on export earning when export earnings change GNP also change but some economist says that there is no relationship between GNP and export earnings. A policymaker gives attention to the potential benefits of export instability and says that due to export instability there is a link created between other countries by doing business activities. The main benefit of export instability is that there is an increase in the economic growth in the host economy. We found a little bit of research on export instability. Here is a question, in the long run; does export instability affect economic growth? Can a country improve economic activities by export of different goods and services?

The main objectives of the study include:

- 1 To examine the historical trend in export earnings of BRICS countries and its economic development.
- 2 To judge the causal association between uncertainty in BRICS countries export earning, investment and monetary expansion.
- 3 To measure the short and long-run impact of export earning improbability on fiscal expansion of BRICS countries.
- 4 To recommend suitable policy suggestions, on the basis of experimental facts, for the mean of competent and suitable export enhancing strategies of BRICS countries.

2. LITERATURE REVIEW

In the related study review of literature means simply “Overlooking or look again”. Excluding the possibility unnecessary copying of effort sand the figuring and finding of related studied is the highlights of literature reviewing, Locating reports of causal information, reading and assessment research and its reports and to the research projects are related to discuss of judgment, it provides an opportunity to the researcher to know what was done previously. Still, it is well-read "what down have down" and anything left over's will be down in specific areas. Thus it is problematic to plan a previous study, While, the review of literature types the ‘base upon which all coming research work must be assembled (Borg and Galls 1989)

Table 1 Summary of the existing literature reviews on the relationship between GDP, FDI, EC, REC, TOP and environment degradation.

From the literature review, it is accomplished that there is a positive association between export and economic growth in both, the short run and the long run. There was a significant impact of food consumption on growth and sustainable development. Further the trade openness, export earning, and tax revenue effect economic growth significantly and positively. Our review of literature also suggests some econometric techniques for panel data analysis, like unit root tests, random and fixed-effect model, Generalized Method of Moments (GMM), fully modified OLS (FMOLS), Vector Error-Correction Model (VECM), Granger Causality Test, Autoregressive Distributed Lag Model (ARDL) and Dynamic Ordinary Least Square (DOLS), OLS, Two-Stage Least Squares (2SLS) and Limited Information Maximum Likelihood (LIML).

3. DATA AND MODEL SPECIFICATION

The panel data for the studied variables during 1990-2017 is collected from WDI and World Data Atlas.

3.1 Econometric Models:

The specification of the interest in our empirical analysis is the Cob-Douglas production function following Kahouli, (2014), Fayissa and Nsiah, (2010), Awokuse, (2008) and Szkorupová, (2014).

$$GDPPC_{it} = A_0 EE_{it}^{\beta_{1i}} GC_{it}^{\beta_{2i}} FI_{it}^{\beta_{3i}} DS_{it}^{\beta_{4i}} T_{it}^{\beta_{5i}} \mu_{it} \quad (1)$$

The chances of hetroskedasticity and data sharpness are minimize using natural logarithmic form (Hossain, 2011).

$$\ln(GDPPC_{it}) = \beta_0 + \beta_{1i} \ln(EE_{it}) + \beta_{2i} \ln(GC_{it}) + \beta_{3i} \ln(FI_{it}) + \beta_{4i} \ln(DS_{it}) + \beta_{5i} \ln(T_{it})$$

where $\ln GDPPC$, $\ln EE$, $\ln GC$, $\ln FI$, $\ln DS$, $\ln T$ are Log of gross domestic product per capita, log of export, log of government consumption, log of foreign investment, log of debt services, and log of trade, respectively.

The second econometric model is also in the Cob-Douglas form following the given literature.

$$GDPPC_{it} = A_0 GCF_{it}^{\beta_{1i}} TO_{it}^{\beta_{2i}} TR_{it}^{\beta_{3i}} FP_{it}^{\beta_{4i}} \mu_{it} \quad (2)$$

Following the first model, it is also transferred in the natural logarithmic form as follows:

$$\ln(GDPPC_{it}) = \beta_0 + \beta_{1i} \ln(GCF_{it}) + \beta_{2i} \ln(TO_{it}) + \beta_{3i} \ln(TR_{it}) + \beta_{4i} \ln(FP_{it}) + \mu_{it} \quad (2)$$

Where lnGDPP, lnGCF, lnTO, lnTR, and lnFP are natural log of GDP Per Capita, Gross Capital Formation, Trade Openness, Tax revenue, and Food production, respectively. μ is the error term. B_s are the related coefficients of independent variables.

3.2 Estimation techniques

Firstly, the unit root test for the stationarity check is the first step to find the best fit model. In our model, some variables are stationary at level while some are stationary at 1st difference. Therefore, the Autoregressive distribution lag (ARDL) is the suitable method for empirical estimation. 3 unit root tests i.e. Levin Lin Chu, I'M Pesaran and ADF test problem are used to measure the order of integration.

3.3 Auto-Regressive Distributive Lag (ARDL) technique

An Autoregressive Distributive Lag model is used to measure the short and long-run association in the aforementioned models of the study (Pearson and shin, 1998). The earlier log-linear models are transformed in the following ARDL models.

$$\begin{aligned} \Delta \ln GDP_{i,t} = & \beta_0 + \sum_{i=1}^n \mu_1 \Delta \ln GDP_{t-i} + \sum_{i=0}^n \mu^2 \Delta \ln EE_{t-i} + \sum_{i=0}^n \mu^3 \Delta \ln GC_{t-i} + \sum_{i=0}^n \mu^4 \Delta \ln FI_{t-i} \\ & + \sum_{i=0}^n \mu^5 \Delta \ln DS_{t-i} + \sum_{i=0}^n \mu^6 \Delta \ln T_{t-i} + \gamma_0 \ln GDP_{t-1} + \gamma_1 \ln EE_{t-1} + \gamma_2 \ln GC_{t-1} + \gamma_3 \ln FI_{t-1} \\ & + \gamma_4 \ln DS_{t-1} + \gamma_4 \ln T_{t-1} + \sigma ECT_{t-1} + e_t \end{aligned} \quad (3)$$

$$\begin{aligned} \Delta \ln GDP_{i,t} = & \beta_0 + \sum_{i=1}^n \mu_1 \Delta \ln GDP_{t-i} + \sum_{i=0}^n \mu^2 \Delta \ln GCF_{t-i} + \sum_{i=0}^n \mu^3 \Delta \ln T_{t-i} + \sum_{i=0}^n \mu^4 \Delta \ln TR_{t-i} \\ & + \sum_{i=0}^n \mu^5 \Delta \ln FP_{t-i} + \gamma_0 \ln GDP_{t-1} + \gamma^1 \ln GCF_{t-1} + \gamma^2 \ln T_{t-1} + \gamma^3 \ln TR_{t-1} + \gamma^4 \ln FP_{t-1} + \sigma ECT_{t-1} \\ & + e_t \end{aligned} \quad (4)$$

Bound test is used to confirm the existence of long term relationship in both models. Furthermore, granger causality test is applied to determine the direction of causality.

4. RESULTS AND DISCUSSION

The following short and long run empirical outcomes are retrieved by using ARDL estimation method for BRICS countries.

Table 1: Long Run Results of Panel ARDL for Model 1.

Variable	Coefficient	St. Error	T-statistic	P-value
Export Earning	-0.2133	0.0692	- 3.0820	0.002
Government Consumption	0.9967	0.0484	20.5531	0.000
Foreign investment	0.0504	0.0227	2.2120	0.029
Debt Services	0.1380	0.0417	3.3038	0.001
Trade	0.4972	0.1364	3.6447	0.000

Table 2: Short Run results of Panel ARDL for Model 1

Variable	Coefficient	St. Error	T-Statistics	P-Value
Export Earning	0.0728	0.0670	1.0868	0.279
Government consumption	0.9741	0.3285	2.9650	0.003
Foreign investment	-0.0067	0.0393	-0.1716	0.864
Debt Services	-0.0510	0.0247	-2.0634	0.041
Trade	0.0242	0.1948	0.1244	0.901
ECM	-0.360	0.081	-2.745	0.046

Firstly, bound test confirms the existence of long-run relationship in both models. Secondly, the empirical outcomes of model (1) show that all independent variables except export earnings have a significant and positive relationship with economic growth. The highly consistent and negative long term relationship of export earnings with GDPPC is

surprising. This negative impact is supported by Chinn and Prasad, (2003) and Stockhammer *et al.* (2008). Among empirical outcomes, 1% increases in government consumption cause 0.97% increase in GDPPC. This result is verified by Plümpner and Martin (2003) Blanchard and Perotti (2002). The positive and significant impacts of foreign investment, debt services and trade on economic growth are supported by Busse and Hefeker (2007) and Demirhan and Masca (2008), Deshpande (1997) and Ajayi and Oke (2012), and Makki and Somwaru (2004) and Lederman and Maloney (2003). However, only government consumption and debt services have short run significant impact on GDPPC. The negative and significant coefficient of ECM term confirms the long run association. The value of coefficient (-0.360) shows the speed of adjustment i.e. more than 4 months are required to reach the long term equilibrium.

Table 31: Long Run Results of Panel ARDL for Model 2

Variable	Coefficient	St. Error	T-statistic	P-value
Gross Capital Formation	0.6227	0.0603	10.312	0.000
Trade openness	0.2165	0.0838	2.5834	0.012
Tax revenue	-0.1573	0.0607	-2.5904	0.012
Food production	0.5267	0.2954	1.7827	0.080

Table 4: Short Run Results of Panel ARDL for Model 2

Variable	Coefficient	St. Error	T-Statistics	P-Value
Gross Capital Formation	-0.0960	0.1737	-0.5528	0.5828
Gross Capital Formation (-1)	0.1052	0.1110	0.9479	0.347
Gross Capital Formation (-2)	-0.1076	0.0591	-1.8190	0.0748
Trade openness	0.0631	0.1339	0.4716	0.639
Trade openness (-1)	-0.2940	0.2275	-1.2926	0.202
Trade openness (-2)	-0.0723	0.0830	-0.8712	0.387
Tax revenue	0.2385	0.0472	5.0442	0.000
Tax revenue (-1)	0.0008	0.1502	0.0053	0.995
Tax revenue (-2)	-0.0316	0.1904	-0.1662	0.868
Food Production	-0.7065	0.5547	-1.2736	0.208
Food Production (-1)	-0.2781	0.4698	-0.5920	0.556
Food Production (-2)	-0.2672	0.4050	-0.6597	0.512
ECM	-0.804	0.276	-2.914	0.005

The long-run results show that all estimated results were significant in model 2. Bound test verifies the long-run relationship in the second model of ARDL. Among research outcomes, gross capital formation economic growth relationship is significantly positive at 1% p-value because it is major component of growth in any economy. It means that investment is positively contributing to the economy of BRICS countries. This outcome is supported by Solarin, (2011), Koskei, *et al.*, (2013), and Krkoska, (2002).The negative impact of tax revenue on GDPPC with significant sign is surprising. Decreasing trend of GDPPC with rising tax revenue indicates the existence of corruption element in the mechanism of tax collection of BRICS economies. This outcome is in lined with Keen and Baunsgaard, (2005) and Lee and Gordon, (2005). Furthermore, 1% increases in trade openness causes 0.21% rise in GDPPC with a significant p-value because trade openness raises investment activities in the domestic region as well as it enhances economic growth. This result is supported by Avelino, *et al.*, (2005) and Greenaway, *et al.*, (2002). 1% increase in food production has raised 0.52% GDPPC at 10% level of significance because BRICS are rich in agricultural sector which is majorly contributing to economic growth as shown in annual figures of BRICS economies. This outcome is verified by Jongwanich, (2009), Parry *et al.*, (2004).

Short term outcomes significantly show the convergences from short run to long run with significant coefficient of ECM term.

4.1 Results of Granger Causality Test:

Table 5: Result of Granger Causality

Causality	F-Statistics	Probability
Export earning → GDPPC	0.86022	0.4256
GDPPC → Export earning	4.40078	0.0142
Government consumption → GDPPC	3.95064	0.0217
GDPPC → Government consumption	2.43830	0.0915
Foreign investment → GDPPC	0.11572	0.8908
GDPPC → Foreign investment	2.17491	0.1179
Debt services → GDPPC	0.92887	0.3977
GDPPC → Debt services	1.18318	0.3097
Trade → GDPPC	0.61452	0.5425
GDPPC → Trade	1.34862	0.2633
Government consumption → Export earning	1.99262	0.1406
Export earning → Government consumption	0.69632	0.5003
Foreign investment → Export earning	1.27009	0.2844
Export earning → Foreign investment	0.52982	0.5900
Debt services → Export earning	0.36873	0.6924
Export earning → Debt services	2.42134	0.0930
Trade → Export earning	0.71926	0.4891
Export earning → Trade	21.6269	0.00
Foreign investment → Government consumption	2.87598	0.0601
Government consumption → Foreign investment	11.8119	0.00
Debt services → Government consumption	2.18194	0.1171
Government consumption → Debt services	9.71535	0.0001
Trade → Government consumption	1.43639	0.2417
Government consumption → Trade	6.72688	0.0017
Debt services → Foreign investment	3.80656	0.0248
Foreign investment → Debt services	1.43029	0.2431
Trade → Foreign investment	2.99692	0.0535
Foreign investment → Trade	0.55917	0.5731
Trade → Debt services	0.28914	0.7494
Debt services → Trade	6.27275	0.0025

Among granger causality outcomes in table 5, export earning does not granger cause LnGDPPC while LnGDPPC does granger cause Ln export earnings. We find two way causation between foreign investment and government consumption, GDPPC and government consumption and debt services and government consumption. However, foreign investment does not granger cause lnGDPPC and lnGDPPC also does not granger cause Foreign investment. Debt services do not granger cause LnGDPPC and L GDPPC also does not granger cause debt services. Similarly, Trade openness does not granger cause LnGDPPC and LnGDPPC also does not granger cause trade openness. Likewise, Government consumption does not granger cause export earnings and export earnings also does not granger cause Government consumption, Similarly, foreign investment does not granger cause export earnings and export earnings also does not granger cause foreign investment. Debt services does not granger causes export earnings while export earnings does granger cause debt services. Similarly, trade does not granger cause export earnings and export earnings also do not granger cause trade. Similarly, trade does not granger cause Government consumption and Government consumption also does not granger cause trade. However, debt services does granger cause foreign investment but foreign investment does not granger cause debt services. Similarly, trade does granger cause foreign investment but foreign investment does not cause granger trade. Trade does not granger cause debt services but debt services do cause granger trade. The significance of all outcomes is verified by F-statistics or their respective probabilities.

Table 7: Result of Granger Causality

Causality	F-Statistics	Probability
GCF → GDPPC	0.22480	0.7990
GDPPC → GCF	6.98462	0.0013

Trade openness → GDPPC	0.46878	0.6269
GDPPC → Trade openness	20.6306	0.00
Tax Revenue → GDPPC	1.27173	0.2839
GDPPC → Tax Revenue	0.76545	0.4673
Food production → GDPPC	1.70386	0.1862
GDPPC → Food production	0.33890	0.7132
Trade openness → GCF	2.59474	0.0787
GCF → Trade openness	19.2377	0.00
Tax revenue → GCF	0.07974	0.9234
GCF → Tax revenue	3.81912	0.0246
Food production → GCF	3.72995	0.0267
GCF → Food production	3.30856	0.0398
Tax revenue → Trade openness	1.53677	0.2191
Trade openness → Tax revenue	0.67481	0.5111
Food production → Trade openness	1.70619	0.1858
Trade openness → Food production	0.63253	0.5329
Food production → Tax revenue	2.33218	0.1013
Tax revenue → Food production	2.62706	0.0763

According to the test, it is shown that GCF does not granger cause GDPPC and GDPPC does granger cause GCF. Trade openness does not granger cause GDPPC. GDPPC also does not granger cause Trade openness. Similarly, Tax revenues do not granger cause GDPPC and GDPPC also does not granger cause tax revenues. Food production does not granger cause GDPPC and GDPPC also does not granger cause food production. However, trade openness does granger cause GCF but GCF does not granger cause Trade openness. Tax revenues do not granger cause GCF but GCF does granger cause tax revenues. However, food production does granger cause GCF and GCF also does granger cause food production. Tax revenue does not granger cause trade openness and Trade openness also does not granger cause tax revenues. Similarly L Tax revenue does not granger cause trade openness and trade openness also does not granger cause L Tax revenue. Similarly, tax revenue does not granger cause trade openness but trade openness does granger cause tax revenue. The significance of all outcomes is verified by F-statistics or their respective probabilities.

5. CONCLUSION AND POLICY RECOMMENDATION

This study has analyzed the long run impact of trade and investment on economic growth for BRICS countries using ARDL estimation strategy while controlling for other factors of tax revenues, debt services, Government consumptions, and food production. In our empirical outcomes in models 1 and 2, trade openness, gross capital formation, foreign investment, and debt services have shown positive association with economic growth while tax revenues and export earnings have surprisingly a negative impact on GDPPC. In both ARDL models, the negative coefficients of ECM term confirm the long run association.

Granger causality test show two way causation between foreign investment and government consumption, GDPPC and government consumption and debt services and government consumption in Table 5. Similarly, two way causation between trade and investment, tax revenue and food production have been found in Table 6 for BRICS countries.

Empirical outcomes suggest provision of sustainable friendly environment for foreign investment, more efficient use of funds by governments and highly focus on value added agricultural and manufacturing products’ exports in order to maintain and raise GDPPC since trade, foreign investment, and government consumption are most significant positive indicators of economic growth in BRICS countries.

REFERENCES

Amoateng, K. and B. Amoako-Adu (1996). Economic growth, export and external debt causality: the case of African countries. *Applied economics*. 28(1), 21-27.

An, G. and M. F. Iyigun (2004). The export skill content, learning by exporting and economic growth. *Economics Letters*. 84(1), 29-34.

Avelino, G., Brown, D. S., & Hunter, W. (2005). The effects of capital mobility, trade openness, and democracy on social spending in Latin America, 1980–1999. *American Journal of Political Science*, 49(3), 625-641.

Awokuse, T. O. (2008). Trade openness and economic growth: is growth export-led or import-led? *Applied economics*. 40(2), 161-173.

- Begum, S. and A. F. Shamsuddin (1998). Exports and economic growth in Bangladesh. *The Journal of Development Studies*. 35(1), 89-114.
- Chen, C., Yao, S., Hu, P., & Lin, Y. (2017). Optimal government investment and public debt in an economic growth model. *China Economic Review*, 45, 257-278.
- Chowdhury, K. (1994). "A structural analysis of external debt and economic growth: some evidence from selected countries in Asia and the Pacific." *Applied economics*. 26(12), 1121-1131.
- Coccia, M. (2014). Driving forces of technological change: The relation between population growth and technological innovation: Analysis of the optimal interaction across countries. *Technological forecasting and social change*. 82, 52-65.
- Crenshaw, E. M., Ameen, A. Z., & Christenson, M. (1997). Population dynamics and economic development: Age-specific population growth rates and economic growth in developing countries, 1965 to 1990. *American Sociological Review*, 974-984.
- Davoodi, H. and H.-f. Zou (1998). Fiscal decentralization and economic growth: A cross-country study. *Journal of Urban economics*. 43(2), 244-257.
- De Gregorio, J. (1992). Economic growth in Latin America. *Journal of Development Economics*. 39(1), 59-84.
- Deshpande, A. (1997). The debt overhang and the disincentive to invest. *Journal of Development Economics*. 52(1), 169-187.
- Dodaro, S. (1993). Exports and growth: A reconsideration of causality. *The Journal of developing areas*. 227-244.
- Dritsaki, M., Dritsaki, C., & Adamopoulos, A. (2004). A causal relationship between trade, foreign direct investment and economic growth for Greece. *American Journal of applied sciences*, 1(3), 230-235.
- Edwards, S. (1998). Openness, productivity and growth: what do we really know? *The economic journal*. 108(447), 383-398.
- Frimpong M. J. and E. F. Oteng-Abayie (2006). "Bounds testing approach: an examination of foreign direct investment, trade, and growth relationships." *American Journal of Applied Sciences*. 10(44), 33-38.
- Gyimah-Brempong, K. (1991). Export instability and economic growth in sub-Saharan Africa. *Economic Development and Cultural Change*. 39(4), 815-828.
- Greenaway, D., Morgan, W., & Wright, P. (2002). Trade liberalisation and growth in developing countries. *Journal of development economics*. 67(1), 229-244.
- Hatab, A. A., Romstad, E., & Huo, X. (2010). Determinants of Egyptian agricultural exports: A gravity model approach. *Modern Economy*. 1(03), 134.
- Jarrett, U., Mohaddes, K., & Mohtadi, H. (2019). Oil price volatility, financial institutions and economic growth. *Energy policy*. 126, 131-144.
- Jongwanich, J. (2009). The impact of food safety standards on processed food exports from developing countries. *Food Policy*. 34(5), 447-457.
- Koskei, N. S. I., Buigut, K., & Kibet, J. (2013). Impact of openness, foreign direct investment, gross capital formation on economic growth in Kenya. *The economic journal*. 34(23), 94-105.
- Lee, J. W. (2013). The contribution of foreign direct investment to clean energy use, carbon emissions and economic growth. *Energy Policy*. 55, 483-489.
- Lee, Y. and R. H. Gordon (2005). Tax structure and economic growth. *Journal of Public Economics*. 89(5-6), 1027-1043.
- Lopez, R. (1994). The environment as a factor of production: the effects of economic growth and trade liberalization. *Journal of environmental economics and management*. 27(2), 163-184.
- Lukman, A. F., Adebimpe, O., Onate, C. A., Ogundokun, R. O., Gbadamosi, B., & Oluwayemi, MacBean, A. (2012). Export instability and economic development, *Routledge*.
- McNabb, K. (2018). Tax Structures and Economic Growth: New Evidence from the Government Revenue Dataset. *Journal of international development*. 30(2), 173-205.
- Moschos, D. (1989). Export expansion, growth and the level of economic development: an empirical analysis. *Journal of Development Economics*. 30(1), 93-102.
- Neanidis, K. C. (2019). Volatile capital flows and economic growth: The role of banking supervision. *Journal of Financial Stability*. 40,77-93.
- Omri, A. and B. Kahouli (2014). Causal relationships between energy consumption, foreign direct investment and economic growth: Fresh evidence from dynamic simultaneous-equations models. *Energy Policy*. 67, 913-922.
- Parry, M. L., Rosenzweig, C., Iglesias, A., Livermore, M., & Fischer, G. (2004). Effects of climate change on global food production under SRES emissions and socio-economic scenarios. *Global environmental change*. 14(1), 53-67.

- Sarel, M. (1996). Nonlinear effects of inflation on economic growth. *Staff Papers*. 43(1): 199-215.
- Sinha, D. (2004). Export Instability, Investment and Economic Growth in Asian Countries: A Time Series Analysis. *Econometric Society 2004 Far Eastern Meetings, Econometric Society*.
- Solarin, S. A. (2011). Electricity consumption and economic growth: Trivariate investigation in Botswana with capital formation. *International Journal of Energy Economics and Policy*. 1(2): 32-46.
- Szkorupová, Z. (2014). A causal relationship between foreign direct investment, economic growth and export for Slovakia. *Procedia Economics and Finance*. 15, 123-128.
- Van Eyden, R., Difeto, M., Gupta, R., & Wohar, M. E. (2019). Oil price volatility and economic growth: Evidence from advanced economies using more than a century's data. *Applied energy*. 233, 612-621.
- Wijeweera, A., Dollery, B., & Pathberiya, P. (2005). Economic growth and external debt servicing: a cointegration analysis of Sri Lanka, 1952 to 2002. *University of New England working paper series in economics*, 8.
- Yiridoe, E. K., Bonti-Ankomah, S., & Martin, R. C. (2005). Comparison of consumer perceptions and preference toward organic versus conventionally produced foods: A review and update of the literature. *Renewable agriculture and food systems*. 20(4), 193-205.
- Yontu Karnindo Saragih, S. and Y. Okita (2011). The Relationship between Tax Revenues and Economic Growth in Indonesia, [Yogyakarta]: Universitas Gadjah Mada.
- Zhang, K. H. (2001). Does foreign direct investment promote economic growth? Evidence from East Asia and Latin America. *Contemporary economic policy*. 19(2), 175-185.

VAGUE MYTHS ABOUT MOEN-JO-DARO: A QUALITATIVE RESEARCH STUDY

Sumaira Younis¹

Department of Educational Sciences, National University of Modern Languages, Karachi Campus. Email: sumairayounismughal@gmail.com

Saman Naeem²

Department of Educational Sciences, National University of Modern Languages, Karachi Campus. Email: saman.k.naeem@gmail.com

Saad Muzaffar³

Coordinator / HoD Department of Educational Sciences, National University of Modern Languages, Karachi Campus. Email: saadmuzaffar@numl.edu.pk

ABSTRACT

Mohenjo-Daro, also known as Moenjodaro, is a collection of monuments and artefacts found in southern Pakistan's northern Sindh region on the Indus River's right bank. Mohenjo-Daro is a town in the Larkana District of Sindh, Pakistan, located off the right (west) bank of the lower Indus River, some 80 kilometers (50 miles) southwest of Sukkur on the level Indus tidal plain. One of the two major Indus civilization centers, Harappa, which is located 640 kilometers (400 miles) away in Pakistan's Punjab state, is still visible today. It was active from about 2500-1700 BCE. According to a myth, Mohenjo-Daro's name translates to "the mound of the dead." A thorough interview with a Mohenjo Daro tour guide was done in order to achieve the objective and historical perspective of the site. The interview and its contents were meticulously recorded and analyzed. Mohenjo-Daro was the second site of the Indus Valley Civilization that R.D. Banerjee found in 1922, and it is one of the earliest and largest metropolises in that civilization, according to analysis. The city was established around 2600 BC. At the same time as Mohenjo-Daro, ancient Egypt, Mesopotamia, and Greek civilizations all coexisted. Mohenjo Daro's town design consists of a citadel in the west and a lower city in the east. Furthermore, the findings suggested that a detailed context about the people of Mohenjo Daro should be added to the history curriculum because it is important for students to learn about inventions and their curiosity about creating something new for their civilization and to give them a sense of comfort at the time. To conserve the Mohenjo-Daro museum and archaeological site, stakeholders must meet their responsibilities.

KEYWORDS: *Vague Myths, Moen-Jo-Daro, Qualitative Perspective*

INTRODUCTION

Mohenjo-Daro, often identified as Moenjodaro, is an entity of mounts and antiquities situated on the right bank of the Indus River in northern Sindh province, southern Pakistan. Mohenjo-Daro is a town in the Larkana District of Sindh, Pakistan, about fifty miles (80 km) southwest of Sukkur on the level Indus tidal plain, off the right (west) bank of the lower Indus River. There is still evidence of one of the two main centers of the ancient Indus civilization (c. 2500-1700 BCE); the other being Harappa, which is 640 kilometers (400 miles) away in Pakistan's Punjab province. The myth states that Mohenjo-Daro's name means "the mound of the dead." Rai Bahadur Dayaram Shani's conclusive evidence from 1921 that the remains at Harappa thus far to a very early period made it impossible to determine that period at the time. The following year, the late Mr. RD Banerjee was assigned to examine the Mohanjo- Daro mounds in Sindh without any knowledge that they were particularly early in age and instead to investigate what was believed to be an ancient Hindu city on portions of which there were Buddhist buildings remnants. By finding seals and other items resembling those found at Harappa, Mr. Banerjee quickly realized that the majority of the group of mounds had a Prehistoric origin. (Mackay, 1934). Nothing is more exciting for an archaeologist than discovering the remains of some great disaster, whether it is a massacre, an invasion, a flood, or an earthquake just occurred in the place. Three thousand years ago, the Harappan civilization, the fourth-greatest civilization in history after Egypt, Mesopotamia, and China, thrived in the Indus Valley Jansen, M. (1985). The southernmost of the two great armed invaders had destroyed the Harappan cities, and hapless victims, many of whom were women and children, had been slaughtered there. (Dales, (1961). In contrast to the earlier phases of the Bronze Age cultural complex, which display varied patterns in the various geographical regions of Pakistan and western India, the urban pattern associated with the Indus

Civilization imposes an apparent similarity in its basic cultural emergence. The Indus Civilization only lacks connections when it comes to other aspects of culture, but even here, they are so uniquely individualistic and firmly established in the local flora and fauna that the tangible features of their society are entirely derived from regional materials (Dani, 1992). The Indus civilization built large, well-planned cities with advanced Bronze Age technology and modest architecture. The Indus does not have any conclusive evidence for elaborate mortuaries, individual-glorifying structures, sizable temples, or royal residences, despite these indicators of social complexity. The Indus civilization was allegedly further self-ruled than other primary sophisticated cultures, and despite a period of research, no conclusive proof of a dominant class of administrative leaders has emerged. The noticeable deficiency of political and financial disparity reported by the original excavators at Mohenjo-Daro was largely accurate. This is due to some widely held misconceptions about the historical distribution of wealth, power structures, specialization, and urbanization rather than the fact that the Indus civilization was not a composite civilization. It is clear from the Indus civilization that a dominant class is not required for community intricacy. The mean 20th-span claim that Indus metropolises were constructed by aggressors, whose significance of the relatively equal distribution of luxury in Indus groupings was disguised by the widespread perception that armed forces enforced a high degree of homogeneity, conformity, and conservatism on the people they ruled. (Green, 2018). People from the Indus Valley were highly recognized for their town planning. Cities in the Indus Valley have clearly well-defined grid arrangements. Early hydromechanics created working sewage and plumbing systems. These systems were comparable to the municipal and sewerage systems established later in the 19th century. The Indus people had strong central and local governments because of the regularity in their urban layout and house construction. Amongst the most notable aspects of the earliest Indus civilization was its city design, which shows how well-developed the city's civic organization was. The Indus cities had flat-roofed dwellings made of brick, parallel roadways that formed a grid system, distinct living units, effective water supply, drainage, and sewerage systems, and suitable ventilation. The city had well-planned and built streets, residences, tall structures, industrial locations, and dockyards. A centralized administration system was used. Bricks were the main building material, but houses may also be constructed with stones and wood. The houses had stairs close to the wall of the front door and were constructed on foundations that raised above the street level. The design and construction of the public spaces varied; there were both single and multiple public rooms, as well as baths, community wells, and sanitary systems. The sewage facilities of the city were carefully planned, and they seem to have been efficiently run and maintained. The Indus Valley civilization also flourished, with well-planned townships and streets that were organized in a network. The extended street at Moen-Jo-Daro measured 805 meters in length and 10 meters in width, which suggests that wheeled carts were likely in use at the time and that roadways were used for trade. The main streets of Moen-Jo-Daro and Harappa were aligned from east to west and north to south, and they intersected at right angles, and were up to 1.5 km long and 3.50 to 10.00 m wide. This layering provided flood protection. The streets and lanes were connected. Each lane served the general public and was lit by streetlamps (Khan, 2020).

LITERATURE REVIEW

The Indus Civilization, which flourished laterally on the Arabian Sea shoreline and the plains of the Indus Valley, is the primary sample of town development. The material to recreate the historical aspects of the four major settlements that have been excavated thus far is provided by the culture of the civilization from which two are located in Pakistan, first is Mohenjo-Daro, also recognized as the "mound of the dead," is located on the right bank of the Indus River in the Larkana District of Sind, and the second is Harappa, also recognized as Hariyupiya of the Rigveda is located on an ancient cot (sukbrawa) of the river Ravi in Sahiwal District of Punjab. The other two locations are in western India; Kalibangan also known as "black bangles" is located about 310 kilometers on the left bank of the now-dry Gagger (ancient Sarasvati) river in northern Rajasthan, northwest of Delhi. Lothal, a town along the Sabarmati River on India's west coast, lies close to where the Gulf of Cambay begins. Due to the rising water table in the twenty-first century, only Mohenjo-Daro keeps the mystery of its previous levels. These levels might point to a cultural complex associated with the Kott Dijians or the incorporation of other early elements of Sindhi and Baluchistan culture. (Dani A. H., 1992) Mohenjo-Daro, which had incredible expertise in civil engineering and urban design, was the most advanced metropolis at the time. The symmetrical buildings of Mohenjo-Daro are organized in a planned grid. The majority were constructed from fired and mortared brick, while some also had inexpressive structures and sun-dried mud brick. Mohenjo-Daro's covered area is thought to be 300 hectares. (Pant, 2005). The town is separated into two parts, the so-called Stronghold (citadel), and the Subordinate City (lower city) these cities exhibit a pattern of twin settlements. The Citadel, which was constructed from a brick mud heap that was about 12 meters (39 feet) high, is believed to have had two sizable assembly rooms, a big residential building intended to house roughly 5,000 people, public baths, and other services. The city had a large central well and a central marketplace. According to (Ramzy, 2016) the Great Bathing system, the Citadel, a massive granary, and sizable residential structures were all located on the acropolis and numerous assembly spaces, with an outdoor area around the entire upper portion. Other substantial structures include

the Great Hall (Pillared Hall), which is believed to have served as a gathering hall, and the so-called Seminary Hall, a collection of structures with 78 rooms that was likely used as a priestly house. Private and public building systems, bores, stores, and marketable structures were arranged end-to-end conventional streets that intersected at exact approaches in a highly systematized type of design that likewise included drainage arrangements. As a result, it is undoubtedly accepted that Mohenjo-Daro was a meticulously strategic city (Marshall, 1931; Morris, 1972). With some notable exceptions like the "Great Bath" at Mohenjo-Daro or the "Granary" at Harappa, monumental buildings in Indus urban sites are frequently difficult to identify from neighboring countries' structures, and their purposes are still largely unknown. Moreover, Wheeler asserts that grain would have been transported by carts from the geography and directly delivered into the anchorages. Jonathan Mark Kenoyer drew bringing out a comprehensive shortage of grain-related evidence at the "granary," that, in his opinion, would be better described as a "Great Hall" with a dubious purpose. The pattern of early urbanization in this area was introduced by the urban growth in the Indus Valley. The initial is the plentiful food manufacture in the natural soil of the river-watered plains, which primarily produces barley and wheat as well as yarn (cotton) as a currency harvest. Two of the leftovers' storage locations, one at Mohenjo-Daro and the other at Harappa have been exposed (Dani, 1992). Ninety years ago, archaeologists were unaware of the complex relationships between ancient flooring and trampled surfaces, wall foundations, and mud fill produced by ongoing rebuilding. Nevertheless, when we reevaluate construction in light of recent archaeological sites in Pakistan and India, the idea that Mohenjo-Daro actually presented enormous palace-like complex figures has strong support. Storage reservoirs and magnificent entries with columns may symbolize the nobility's concern for formal transparency and their controller over entry to closed-off amalgams (Vidale, 2010). Evidence of an advanced water supply and sewage disposal system has been found at Mohenjo-Daro, a significant Indus Civilization urban site that times to the middle of the third era BC. In addition to meeting domestic needs, more than 700 wells also provided water for a network of personal baths and a "Great Bath" for routine by the general public. Drains and sewers were methodically created to assist in the evacuation of garbage. The system is outlined and its social environment is analyzed. (Jansen, Water supply and sewage disposal at Mohenjo-Daro, 1989)

The dig uncovered numerous artifacts, including seated and standing individuals, copper, and stone tools. Carved seals, weights and balances, gold and jasper jewelry, as well as child-friendly toys. The fact that so many bronze and copper objects, including bowls and figures, have been found at the location demonstrates that the people who lived in Mohenjo-Daro were proficient at using the lost wax method. Instead of being used for smelting, the boilers discovered at the location are believed to have been utilized for copper works and melting alloys. (McIntosh, 2002). Instead of being used for smelting, the boilers discovered at the place are understood to have been utilized for copper works and tender alloys. In the northeastern region of the site, there even appears to be a whole neighborhood devoted to shell-working. (Aiyappan, 1939). Many of the pots had ash deposits in them, which led archaeologists to believe they were either used to store a person's ashes or as a way to warm a building that was situated in the area after they discovered clay and soil sherds from the area. Another specialized art is mentioned in the tradition of painted pottery. Steatite, likely from the zone of Tepee-Yahya in eastern Iran, was used to make closures (seals), while oriental alabaster was used to make cups and other containers. The growth of the fine arts in urban centers is depicted in limestone statues, musical instruments, and dancing figures. Many animal motifs and human scenarios that appear to have had religious and mythological significance are presented to us by the seals themselves. There is little question that some pedestaled symbols and real people were revered. While there isn't much evidence for established conviction in the city's architectural ruins, the employment of spiritual symbols in construction with business communications reveals a community that values religion. The numerous animals that are depicted on seals are a significant component of popular beliefs. Some of the animals have multiple heads, while others have multiple bodies. Some of the species are undoubtedly legendary in that they mix the characteristics of various animals into a single body. Undoubtedly, the bull is the most prevalent of these creatures. The appearance of the unicorn on numerous seals is still mysterious. The representation of foliage or shrub trunks on the closures can be linked to yet another trend. A frequent design element is a tree inside a railing. These might not be particularly significant on their own, however, they begin to have some significance when combined with the appearance of the pipal leaf motif, which is depicted on numerous painted pots or carved on seals (Dani, 1992).

A significant Indus Tradition craft technology is the production of copper and bronze. The wide range of objects made of copper and bronze would have been employed as status symbols, wealth indicators, instruments in other craft industries, and other utilitarian purposes. Copper and bronze artifacts have made up a considerable component of the improved substantial collection at practically every Indus Tradition excavation site. Metalworkers employed copper and copper alloys to create a variety of items throughout the Indus region, from high-end wares to simple utilitarian items. An earlier study of copper-bronze metallurgy in the Indus region concentrated on identifying broad trends and characterizing the metallurgical legacy throughout the entire Indus region. The goal of the current research project was to reconsider and revise these conventional interpretations in order to take into account contemporary viewpoints

on the study of ancient metallurgy. data from archaeological excavations and surveys have previously supported a theory that copper manufacturing in Indus communities was dependent on the processing of semi-finished materials (such as ingots), and possibly recycling polished copper/bronze artifacts is covered (Miller 1994; Kenoyer and Miller 1999). Based on observations gathered from excavation data, copper and bronze were used to create household items like dishes and other vessels, tools like scale pans and saws, weapons like spears and arrow points, jewelry like beads, rings, and bangles, and possibly significant objects for economic control or religion like magnitude skillets and tablets. (Hoffman, 2019). With its numerous brick-built structures and reputation as one of the biggest Indus Civilization settlements, Mohenjo-Daro is well-known. Particularly, it has a drainage system that is distinct from other Mohenjo-Daro-period ruins. Based on the findings of previous archaeological studies, this system has thus far been understood as a straightforward sewer; however, few studies from an engineering perspective have been conducted. In order to study the original functions of the drainage system, the authors studied the water supply-drainage system from a civil engineering perspective. This supply-drainage system consists of both hardware, such as sewer, well, and soak-pits, and software, such as water supply capacity, rainfall intensity, and water use form. As a result, it appears that this drainage system was primarily created to remove waste water from floor-paved rooms close to wells. (NAKAMURA, 1995).

METHODOLOGY

A detailed interview was conducted with a tourist guide of Mohenjo Daro. The interview was transcribed and analyzed by the content analysis method.

DATA ANALYSIS

A senior guide had been asked for a thorough study and more research. His mother town was district Larkana, and he has been employed in Mohenjo Daro for more than eight years. He explained throughout the conversation that the inhabitants of this ancient civilization were discovered to be non-Muslim 4500 to 5000 years ago, but it was unresolved what their original religion was at the time. The remainder suggests that the people may worship water because there have been found to be 700 wells, along with monkey statues and little toy-sized sculptures that suggest Hinduism may be the practiced religion. He continued by saying that Sir John Marshall's 1911 geographical survey analysis was expanded upon for the finding of Mohan Daro. The tour guide additionally reported that a few things, including statues of a dancing girl and a king-priest, were discovered while they were digging. The original sculpture of the King-Priest is made up of stone and displayed at the Mohan Jo Daro Museum. The original dancing girl sculpture, however, was made of bronze and provided to India. Additionally, their models are displayed at the Mohan Daro entrance gate. Subsequently, they noticed their reflection in the water and realized that reflection can be seen in any lightning or shining object making them appear more intelligent, and they later created copper plates to use as mirrors and see their reflection. These plates weren't particularly large, and the original is still on display at the Mohenjo-Daro Museum. Additionally, they discovered numerous bronze seals with drawings of strange species and a bull in an unknown language. The tour guide also mentioned an important fact, specifically which people in Mohanjo Daro also created jewelry for women in order to make them attractive, beautiful, and distinguishable from men, and this jewelry is still displayed at the museum. Citizens of Mohenjo-Daro used a mystery language that is still unintelligible today. He emphasized that when we examine their sewerage system, it defines their intelligence because they had excellent civil engineering skills. The sewerage system is still functional and is built with channels to allow it to pass through floods and intense rainfall. The most crucial element he mentioned was that "gravity was taken into consideration when constructing this sewerage system." The walls that were built during that period are still standing, and they are constructed out of sand bricks, concrete, metals, alloys, and gypsum as well as other building materials. Laboratory testing has been done on the wall's substance. However, wall thickness can range from 2 feet to as much as 6 feet. According to the guide's perception, he believes that "The thickness of the wall is the factor that gives walls their solid and strong condition." The question of what caused the destruction of this civilization arose at the end, and he responded that it is an unsolved mystery to this day Since no skeletons have been discovered in the research, it is predicted that the people of Moehnjo Daro have been displaced at various intervals due to climate change and water scarcity so they were unable to survive there because of these two major reasons. When asked about the government's contribution to the conservation and preservation of Mohenjo-Daro, he declined to respond because he wanted to promote his political beliefs.

CONCLUSION

Mohenjo-Daro is one of the earliest and major metropolises in the Indus Valley Civilization and it was the second site discovered in Indus Valley civilization by R.D Banerjee in 1922. The city was founded in approximately 2600 BC. Ancient Egypt, Mesopotamia, and Greek civilizations all coexisted at the same time as Mohenjo-Daro. The town planning of Mohenjo Daro is a citadel in the west and the lower city is planned in the east. The citadels consisted of administrative buildings whereas the lower city was for common people moreover, the most important place was the "Great Bath" which was basically a water tank just like a swimming pool. The construction of the tank was also known

as the oldest example of waterproofing in the world since the floor and walls were rendered watertight by precisely fitted bricks put edge to edge with gypsum mortar. In addition to the large well that was used to fill the great bath, there were also numerous changing rooms nearby. The great bath is a fine example of Harappan engineering and it has been suggested that the great bath was primarily used for ritual bathing. Despite the fact in the citadel, there was the largest building that is known as the Great "Granary" which is situated at the southwest corner of the Great Bath. Granaries are buildings where grain or animal feed is kept. They are typically constructed above ground to protect supplies from natural disasters like floods as well as keep the food stocked away from rodents and other animals. There was a multi-pillared assembly hall with a square shape in the southern portion of the city. If we look at the lower city, we can see that every house was built according to a grid pattern with 90-degree intersections between the streets. The city's primary market was located in the middle, and every street had a route to access it. The dig uncovered numerous artifacts, including seated and standing individuals, copper, and stone tools. Carved seals, weights and balances, gold and jasper jewelry, as well as kid-friendly toys. There were many seals, but only two of them were found in great numbers: Pasupati seals and square-shaped seals with drawings of humpless bulls. More than 60% of the Mohenjo-Daro seals were discovered to be humpless bull seals. In addition to that, there was a stone statue of a priest-king. The bear was perfectly groomed and wearing a patterning robe, but the statue was shattered at the base. There was a fillet in the middle of the head, which is a symbol of royalty. By the Harappans, bronze was frequently used. By looking at the ornaments or jewelry it is proved that copper and bronze were utilized to produce domestic items, tools, weapons, ornaments, and possibly even religious or economic control objects. Due to their invention of bronze and copper at that time, it became evident that the people of Mohenjo Daro were exceedingly intelligent. Use the wax process, which is still in use today, to create sculptures. Research is currently being done to figure out the symbols printed on the seals because the language is still obscure and unreadable. The research suggests that they have moved or migrated to other regions as a result of climatic change and a shortage of water. As responsible citizens, we should work with the management of the archaeological site in the modern day to keep it preserved and maintained because when we used to visit the site, we had to be careful not to damage the environment. Since it's important for students to learn about the inventions and their curiosity about creating something new for their civilization and to give them a sense of comfort at the time, a detailed context about the people of Mohenjo Daro should be added to the history curriculum. Stakeholders need to fulfill their obligations in order to preserve the Mohenjo-Daro museum and archaeological site.

REFERENCES

- Aiyappan, A. (1939). Pottery Braziers of Mohenjo-Daro . *Man*, 71-72.
- Dales, G. F. (1961). The mythical massacre at Mohenjo-Daro. *ARYAN INVASION THEORY*, 35.
- Dani, A. H. (1992). The Indus Civilization. *History of civilizations of Central Asia*, 1.
- Dani, A. H. (1992). The Indus Civilization. *History of civilizations of Central Asia*, 1.
- Green, A. S. (2018). Mohenjo-Daro's Small Public Structures: Heterarchy, Collective Action and a Re-visitation of Old Interpretations with GIS and 3D Modelling. *Cambridge Archaeological Journal*, 205-223.
- Hoffman, B. C. (2019). Indus tradition copper and bronze metallurgy: a model from Harappa. *The University of Wisconsin-Madison*.
- Jansen, M. (1989). Water supply and sewage disposal at Mohenjo-Daro. *World archaeology*, 177-192.
- Khan, S. D. (2020). Similarities of Minoan and Indus Valley hydro-technologies. *Sustainability*, 4897.
- Mackay, E. J. (1934). Further Excavations at Mohenjo-daro. *Journal of the Royal Society of Arts*, 206-224.
- McIntosh, J. (2002). A peaceful realm: The rise and fall of the Indus Civilization. *Westview Press*.
- NAKAMURA, T. K. (1995). Reconsideration of water supply-drainage system on the ancient remains of Mohenjo-Daro. *Historical Studies in Civil Engineering*, 87-96.
- Pant, M. &. (2005). The Grid and Modular Measures in The Town Planning of Mohenjodaro and Kathmandu Valley A Study on Modular Measures in Block and Plot Divisions in the Planning of Mohenjodaro and Sirkap (Pakistan), and Thimi (Kathmandu Valley).
- Ramzy, N. S. (2016). Morphological logic in historical settlements: Space syntax analyses of residential districts at Mohenjo-Daro, Kahun and Ur. *Urban Design International*. 41-54.
- Vidale, M. (2010). Aspects of palace life at Mohenjo-Daro. *South Asian Studies*, 59-76.

IMPLICATIONS OF SUPPLY CHAIN MANAGEMENT MODEL IN PAKISTAN'S HEALTH CARE SYSTEM: A PROPOSAL**Muhammad Altamash¹**Scholar, Department of Educational Sciences, National University of Modern Languages, Karachi Campus.
Email: altamash021@gmail.com**Saad Muzaffar²**

Coordinator / HoD Department of Educational Sciences, National University of Modern Languages, Karachi Campus. Email: saadmuzaffar@numl.edu.pk

ABSTRACT

The management of all business operations, from suppliers to customers, is known as supply chain management. According to experts from the Supply Chain Management Council, supply chain management is the coordination of planning with the management of other operations including procurement, sourcing, and logistics management. The various channel managers' cooperation and partnership are key supply chain components (Ramanathan, 2014). These managers may also collaborate with suppliers, customers, middlemen, and service providers. The management of supply and demand, as well as their market projection, is a component of supply chain management's incremental activities (Fliedner, 2003; Ireland & Bruce, 2000). Modern supply chains are focused on efficient consumer response (ECR) (Ireland & Bruce, 2000). A crucial component of reaction efficient consumer response (ECR) is the focus of modern supply chains (Ireland & Bruce, 2000). An important element of the response of efficient consumers is collaboration between suppliers and retailers. Vendor Managed Inventory (VMI), Point of sale systems (POS), and Electronic Data Interchange (EDI) are the tools modern technology has made available to support the collaboration between retailers (Buyers) and manufacturers (suppliers). Under the implementation of such a developed supply chain structure and a clear understanding of the business practices. With the strategic units, a collaborative plan in the organization gets developed. The supply chain process is redefined to reduce the level of inventory, and lead timing, and improved responses towards deviation of customers' demand. To establish effective collaboration these factors must be implemented effectively and are the subject of research for this project. In developed countries, the pressure to be highly competitive and efficient has helped in promoting collaboration between retailers and their suppliers. The advent of similar business culture and availability of technology is likely to promote a high degree of similar collaboration in Pakistan too (Sunil, 2010). This research project proposes to investigate the factors that are going to influence a successful collaboration program in Pakistan. We propose to explore the determinants of a successful collaborative effort and the likely success of a program such as a Supply chain management offering in the healthcare sector implemented in Pakistan.

KEYWORDS: *Supply Chain Management Model, Health Care System, Implications***INTRODUCTION**

Since managing the supply chain and its skills are frequently used globally and strategies are frequently gradually evolving daily, generally. Low-emission economies rely on financial strategies that are frequently straightforward and efficient to influence their labor markets and manage consumer spending. These countries' health sectors have challenges not just in administration but also concerning the procedures used, which has an impact on the services provided directly to patients in terms of treatment quality, etc.

The supply chain itself incorporates various parameters and factors that can be used to verify the specifics of that product, including the overall verification process of the goods in front of final consumers and other things like transfer transactions, logistical features, etc. If we discuss the health industry in the documents crucial as the sector health, offer management is used to ensure that the procurement operations are carried out without difficulty and administrative functions are carried out in nursing homes where they have removed equipment should be done properly to provide quality care.

This study focuses on the discussion of the parts and pieces of the supply chain for the necessary materials, together with efficient software in the field of medical center administration, with a focus on long-term planning and innovative design aspects. Supply chain management is a challenging industry, especially in nations with relatively low levels of construction. We have conducted several literature studies as part of this function's research and looked for general information about the range of supply chain management (SCM) practices in the medical industry. There is now a concern with applications that the wellness business is using to provide timely delivery in connection to customer satisfaction.

Although the operational strategy of a healthcare facility and the background of medical center management both exhibit complexity, variability, and unpredictability due to the nature of the patient population and the high demand for care and attention (Wieser 2011; Bourlakis et al. 2011), supply chain and logistics are widely acknowledged to play an important role in these processes. Management operations involve the supply since overall management tasks with the daily supply chain and operational logistics in hospitals have other management techniques that were not the exact as per older routine, as the satisfaction of the individual interest throughout the specific health care process steps. Managing the impacted individual incorporates a measure of points of clinical related guidance and managerial multidisciplinary notwithstanding reliant which are expected to have a dealt with in addition to synchronization interconnection in pay for to stay away from the issues they face corresponding to sticking around examples for people in addition to abuse of clinically related sources and lacking administration concerning the legitimate removal of waste materials components and reusing focuses.

PREAMBLE

Although in previous years, the supply chain and logistics function and operations have gained a strategic place in the management of hospitals (Volland et al., 2017). In present days, we are also observing different strategic decisions related to the supply chain and logistics such as the outsourcing of certain activities in the hospital supply chain (purchasing equipment and other stuff related to interest and supply management, sterilization, stock management, or intra and inter-site transport, etc.). Hospital management has also implemented various tools and methods related to management allowing a continuous improvement towards the approach of implementation of supply chain management. Therefore, significant results were achieved in reducing errors; improving process quality, and reducing wait times (Mazzocato et al., 2010). Against the background of the complexity of the hospital management system, the variability and unpredictability of the patient profile, and the high demand for care (Wieser 2011; Bourlakis et al. 2011), the supply chain is considered an effective solution in the health sector because due to the tough working time, they should care for staff by offering them the opportunity to concentrate on their core activities and improve patient care conditions (Landry and Beaulieu 2001).

The dream is to revolutionize the health sector by taking a step regarding implementing the best logistic practices and methods that are sufficient for adaptation time and feedback from the government and other stakeholders to be able to concretely evaluate its contributions (Mazzocato et al. 2010). Although till now very few health establishments have been able to generalize these methods across their entire health sector. In addition, an efficient and effective approach is also based on the qualifications and skills of top management (purchasers, logistics managers, nurses, etc.). Hospitals should improve this aspect by creating an awareness campaign and a recruitment policy regarding these practices should be adapted according to the requirements.

Earlier supply chain and logistics operations functions had implied a critical significance in catering health care needs (Volland et al., 2017). In current times, we are in addition observing different tactical decisions linked to the supply chain and logistics like the outsourcing of specific activities in a healthcare facility supply chain (acquiring equipment along with other stuff linked to the interest and offer management, sterilization, inventory management or intra and inter-site transfer, etc.). Medical center managements also have implemented various resources and methods linked to management allowing a continuous improvement for the approach of execution of supply chain management. Therefore, substantial results were attained in reducing mistakes; improving process top quality, and reducing wait-around instances (Mazzocato et al., 2010). Contrary to the background from this complexity of a healthcare facility management technique, the variability and unpredictability of the individual profile along with the popularity for attention (Wieser 2011; Bourlakis et al. 2011), resource chain is recognized as an effective choice in the medical sector because of the tough working moment they ought to care for staff members by providing them the chance to focus on their core things to do and improve individual care problems (Landry and Beaulieu 2001). The aspiration is to revolutionize the medical sector by firmly taking a step to put into practice the very best logistic tactics and methods which are sufficient for version time and feedback from the government along with other stakeholders to concretely assess its efforts (Mazzocato et al. 2010). Although till right now very few health establishments have already been able to generalize these procedures across their complete health sector. Furthermore, a competent and effective tactic is also in line with the qualifications and expertise of top management (logistics professionals, nurses, etc.). Nursing homes should enhance this feature by creating a knowledge campaign along with a recruitment policy concerning these practices that ought to be adapted based on the requirements.

RESEARCH PURPOSE

The main purpose of this exploration would be to conclude the significance of supply chain management in the well-being sector such that the consultant of that business can comprehend it. Although this study will be completed through various literature evaluations and topics beneath the umbrella of Supply Chain management. This exploration aims to produce knowledge of the want of source chains in medical center management in Pakistan. The goal of this considerable exploration would be to build knowledge of the want of supply chain in medical center management in

Pakistan. Because since Pakistan is an underdeveloped country, the significance of SCM continues to be neglected over the board in almost every aspect.

The hospitals that happen to be following the conventional patterns which contain storing, purchasing, and transporting because of these traditional methods there is no innovative solution that ought to be adopted to avoid losses like monetary and materials. Since around the world, the procedures of Supply chain management are properly and efficiently carried out in hospital management in this analysis we will make an effort to elaborate on the issues which are confronted by the medical sector because, in these modern times, the populations of metropolitan areas and country happen to be increasing speedily so there's intense stress on public well-being sector to provide for these situations about hospitals minus the implementation of resource chain practices the grade of treatment through diverse drugs wouldn't normally be labeled as quality care and attention because there are many processes by which items and equipment's linked to the hospital management are purchased that happen further make use of for medical services of the general population in private hospitals in some other services. This means this is the period where the company should place an effective department that oversees acquiring equipment and medicines along with other actions linked to the external in addition to internal matters linked to material handling.

RESEARCH QUESTIONS

After the comprehensive study of the backdrop of this subject matter and observing the issues regarding this research we have produced some research queries which can only help us in additional research and by taking into consideration the consequence of this study, we are in a position to conclude that whether these outcomes can be carried out or there may be a far more broader solution to increase the understanding of resolving and conquering the issues.

By taking which steps will the supply chain management be carried out in hospital operations?

Where will it contribute to public well-being interest?

What will be the resource chain implementation in these circumstances?

What will be the approaches by which the obstacles present in the implementation of the supply chain are to be overcome?

RESEARCH OBJECTIVE

The purpose of the research objective would be to carry out the primary points or aims which are needed for research to be completed in the precise area. Since we have been studying the execution of supply chain techniques in the well-being sector to be able to attain insights into issues that are confronted during the execution below are a few objectives we have observed which should be related in this particular study to be able to implement or even to apply the procedures.

To comprehend the significance of Supply chain Management in health care management.

To create awareness for the execution of the supply chain management.

To look for possible benefits of Supply chain management in hospital operations.

To determine methods of how exactly to overcome the obstacles faced in execution.

SCOPE

The idea of the supply chain is pushed to play a role advantageously to the well-being industry. The significance of the supply chain that is commuted to give to well-being is fielded advantageously. Through supply chain management medicines along with other products linked to health could be monitored and made secure. Due to supply chain management medication along with other merchandise linked to well-being could be generated and supervised anchored. To avoid critical situations like insufficient medicine etc. and these kinds of situations could occur because of a lack of administration.

The opportunity for supply chain and logistics within this field is huge and it performs a vital purpose with regards to the public interest in the same way if we discuss the health field which provides well-being solutions to people in types of hospitals medical centers and exploration laboratories by which the patients happen to be treated. Since resource chains can be used in every company to be able to overcome having less management with regards to monitoring and analyzing the requirements of the company although they will have boundaries that happen to be restricted to resources but perhaps the boundaries happen to be vast enough.

LIMITATIONS

Majorly, in order to be able to discuss the problems issues or even simply the is the constraints usually first of all begin with not much little cost-effective method because when an individual is usually creating a new department therefore requires human resource including offering up area and equipment connected with the conclusion final outcome associated with his department should have had their own tasks for the specific organization, this will surely be paying out to who are doing work in that the reason that particular department will therefore will raise costs , in addition this would not actually end up being the same as like it was to initially before and even though certainly require software which often could record the specific precise activities which are in each routine to satisfy examining

plus the addition to the balance associated with your own job , so basically it's not just a lucrative technique, but it offers reliability to the particular system and boost the value of life.

JUSTIFICATION

It is assumed that the study of the health field benefits in numerous phases and determines the value chain management provides relative to the eye of public health. The research will even help deter my inconvenience possible plus problems faced during the implementation planning of the management of the provide chain including the ownership of practices that are usually related to this place plus the solution needed to be able to counter these issues.

LITERATURE REVIEW

This study aims to create awareness of the purpose of Supply chain management (SCM) and its effectiveness in the healthcare industry of Pakistan. Therefore, the following review of available literature was studied to understand the current situation in this field of Pakistan. In the healthcare system, supply chain management is crucial to delivering high-quality care to patients. A set of organizations that are connected by a few of the upstream and downstream movements of products, services, finances, and data from a source to a customer is what supply chain management refers to. (Mentzer et al., 2001). There are many definitions of Supply chain management.

Although in the upcoming recent years, Supply chain management has been an integral part of the healthcare industry since supply chain management plays an important role in hospital performance in terms of controlling waste management, preventing medical errors, upgrading the quality of care and service, and increasing operational efficiencies (Byrnes, 2004; Schneller and Smeltzer, 2006; Kowalski, 2009; Shih et al., 2009). Supply Chain Management in hospitals also includes the internal parts (e.g. patient care unit, hospital storage, patient, etc.) and the external chain (e.g. vendors, manufacturers, distributors, etc.) (Rivard-Royer et al., 2002; Schneller and Smeltzer, 2006).

A hospital purchases goods and services from suppliers and other vendors, stores them, and then distributes them to each of its departments in accordance with its administrative and operational procedures and departmental hierarchies. However, supply chain management also encompasses business-related activities and processes that incorporate a constant, seamless flow of products and services for healthcare delivery e.g., procurement, distribution, vendor management (Rivard-Royer et al., 2002; Shih et al., 2009).

The term 'Supply Chain Management' (SCM) was introduced by consultants in the early 1980s. (Lambert-Cooper 2000) It has its origins in logistics literature (Bowersox et al. 1999) and logistics has continued to have a significant impact on the concept. The scope of SCM has widened over time from an intra-organizational focus to more inter-organizational issues (Dubois et al. 2004).

Basically, various forms of innovation are significant in healthcare systems, according to literature reviews: integrator, centered on the customer, and utilizing technology (Herzlinger, 2006). The customer-focused technique focuses on reducing patient waiting time and minimizing the medical expense including the average cost burden of patients. The technology-which is based on innovation for making proper improvements to the delivery system that relies on the supply chain so that upgraded processes can deliver high-quality treatment, different and newly improved types of treatment, and prevention of diseases.

Another innovation is the integrator, which increases efficiency in healthcare services and the majority of group purchasing, as well as the integrated network for IT and supply chain. These three categories of innovation can receive help from information technology-related applications. In the healthcare sector, supply chain innovation has been viewed as a crucial success element for organizational performance (Byrnes, 2004; Herzlinger, 2006; Schneller and Smeltzer, 2006; Singh et al., 2006). SC innovation refers to tools that can improve organizational processes needed for effective SCM through seamless interactions with suppliers, manufacturers, distributors, and customers (Lin, 2008). So, although supply chain innovation enables a significant decrease in cost and the time it consumes, the creation of new operational strategies, provision of consistent quality, and development of flexibility for dealing with rapid changes in the business environment (Stundza, 2009).

The SCM framework by Lambert & Cooper (2000 70) is mentioned below and is challenging as it explains the interrelated nature of SCM and the need to proceed through multiple steps to handle a supply chain.

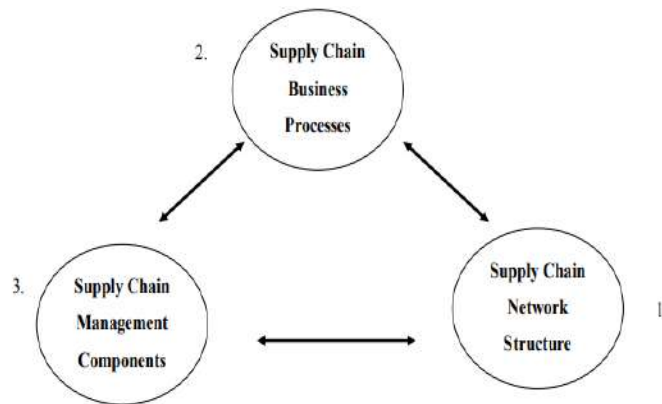


Fig:2.2.1 SCM framework by Lambert & Cooper (2000 70)

Supply chain management has the unique feature that it connects the other departments within the organization. Since on the worldwide platform, Global Supply Chain Forum has the following definition:

The integration of essential business processes from the customer through the original suppliers to deliver products, services, and knowledge that add value for clients and other stakeholders is known as supply chain management. (Lambert-Cooper 2000, 66).

Miles and Snow (1978) introduced four kinds of strategies: prospectors, defenders, analyzers, and reactors. Walker and Ruekert (1987) claimed that a reactor is not an active strategy in the business surroundings. They also observed and believed that defender strategy must be separated into the low-cost defender and differentiated defender. Thus, these four types of strategy are defined (Slater and Olson, 2000):

Prospectors: These companies are pioneers in breaking into new markets by launching new products. They have no qualms about entering markets that appear to be advantageous. They also concentrated on delivering fresh products with fresh capabilities. Their objectives are to produce and offer the most effective products possible while drastically reducing costs and improving performance.

Analyzers: These companies occasionally pioneer new and developing markets. Although improving customer benefits and total cost reduction might be the prospectors' quickest follower with improved objective framing and accurate monitoring of competitors' actions and consumer reactions to them.

Differentiated defender: Although in this scenario with maximum protection of their product market position attempt to sustain a stable market. They are rarely the first in developing new products and are rather focused on providing better quality and superior products. Their product's prices are usually higher than the industry average price.

Low-cost defenders: In this scenario with maximum protection of their product-market position attempt to sustain a stable market. The business is well-focused on capturing its et share in existing markets by introducing products at an affordable cost for the public.

Nowadays companies that are national or at a multinational level are focusing on maintaining their advantage over other companies through edge differences and in this scenario, the suppliers and vendors play a key part. The suppliers should maintain an edge advantage and key position against their opponent and improve performance through efficient supply chain operations Fisher (1997) introduced the efficient supply chain to minimize expense with upgrade performance with the help of effective supplier channel selection. Cigolini et al. (2004) suggested that an efficient supply chain minimizes expense burden and increases the performance of service and quality.

Chen (1997) focused to maintain the flow of cost and knowledge to achieve supply chain upgraded performance in the further process. Although supply chain efficiency refers to the simple process with suppliers readily available for various categories, reliability is concerned with the PLC (Product Life Cycle) of the product and the management of waste disposal, which can vary for each organization that offers the best support to further improve operational processes and accelerate delivery or customer requests using information systems.

In almost every sector and especially in the healthcare industry and hospital management areas where managers have the responsibility to deal with the public and to provide them with the best quality care that concern the most in this sector the supply chain always creates and adds superior value to the consumer-related products and their services and the expense on components (e.g. production cost, logistics and transportation, and handling of material within an organization, etc.) perform its part as an operational process (Chen, 1997). Although the cost can be incurred by a wrong order-to-delivery cycle, t difficulty will be created due to the complex nature of the transportation process and

handling of the products which will be stored in a specific area of the hospital. In this scenario, the information networks provide a bridge to develop a positive relationship between consumers and suppliers (Heikkilä, 2002). In a global context the companies which are worldwide spread, and work based on performance-improving results and networks which are handling the information. Since the ability to handle the modern process of continuous replacement and logistics functions that depend on upcoming orders. Nowadays all companies which are related to supply chain or have departments that are working in functions that are connected to supply chain management and transportation process including logistics are now working on different techniques to gain outcomes that would be better than their competitors through implementing techniques like radio-frequency based identification (RFID) for transportation means and tracking including sharing the real-time databases and for placement of order and invoicing things related to it are now based on electronic data interchange (EDI). Meanwhile, networking is done through the Internet and GPS and these facilities are also being used to make the performance of communication with customers. In recent years around the world, there is an expanding and upcoming emphasis related to the innovation of organization needs which is almost based on the modern sharing of information and communication technologies (ICTs) for supply chain management and quality management business process re-engineering, enterprise resource planning (ERP), and customer relationship management to improve competitiveness (Lin et al., 2005; Flynn and Flynn, 2005; Flint et al., 2008). Although to create uniqueness and to have an edge advantage organization need to improve to provide better quality services and quality care which can be done with supply chain efficiency and customer-based satisfaction based on the core competencies. Quality management has an important role to play in the field of supply chain management because it provides value to the high-quality products and services which are related to it. Implementing the practices of quality management in the supply chain as a result will minimize the process variance including shipping damage and the delivery cycle time on the supply chain (Flynn and Flynn, 2005; Lin et al., 2005). To minimize the steps included in the process of variance the improvement of quality management will include the time of delivery and the efficiency at which operation is done thus reduction of cycle stock and their related waste and close relationships with respected suppliers and customers.

In today's world trends are rapidly changing in multiple sectors in which supply chain management is also a part of it since the practices around the globe to proceed with the supply chain functions are now considering to include green logistics in which the main focus is on those products which are to be produced in a sustainable way that it would not harm the environment and should be in a green perspective. This perspective is not only in logistics or supply chain management but across all the areas which come under the manufacturing process. Environmental sustainability is now considered a priority at every step and the different measures related to safety procedures have also been considered to make the product more environmentally friendly.

Since a green perspective in any aspect of industry can be termed as thinking green or being environmentally friendly. Although green Logistics is therefore referring to the green 'perspective' on logistics and can be described as concerned with producing and distributing goods sustainably, taking account of environmental and social factors (Eglese, 2007).

Even though the ideology's definition's explanation notes that logistics is at the core of modern transport systems, As has been shown, the word suggests a level of planning and management of goods movements that only modern technology could have made possible. One of the most significant advances in the transport sector has occurred as a result. Being green has come to represent a variety of environmental issues and is typically viewed positively. It is used to imply environmental compatibility and, like logistics, is advantageous (Slack, 2001).

Many businesses all over the world have effectively implemented supply chain management, and this system is assisting in achieving organizational performance through the application of supply chain operations and management. The structure of each organization in Singapore's hospitals is the same, with the exception of the size of their structure buildings and enterprises in terms of business, which depends on their scale and the number of employees. Other factors to consider include the building, equipment, manpower, layout, and floor area. Singapore is a country in the Asia Region. Especially in hospitals, there is a department that plays a key role which is named as Center for Sterilization Service Department (CSSD), although the main functions which are related to this department are materials management, receiving instruments, decontamination, packing, sterilization, and instrument distribution. The health sector is trying to reduce the increasing operating expenses by implementing the best practices and innovative ideas in their existing supply chain management. Since the reduction in expenses regarding different operation measures, Batchelor et al. (1995) suggested alternatives such as outsourcing the function of logistics and centralizing distribution centers. Many examples of these methods exist in the international market such as Johns Hopkins Hospital, USA, etc.

In Pakistan, the health industry is composed of two sectors recognized by the government that are private sector and the public sector in which some hospitals come under government management and some of them are operational

under the private sector. Although both are working hard to achieve the highest standard of quality care and quality management for the patients according to researchers there are hardly any hospitals that are focused on implementing the supply chain, especially government departments. Since the focus is to conclude our study about the techniques related to the international practices of supply chain management and how to implement them so that the health sector of our country may be benefited from this study through which the awareness of supply chain would be increased. Although in our country a small number of research conducted on the implementation of supply chain management and its functions in hospital management and there are a small number of figures research papers that could be identified for the health industry. Therefore, we have decided to pursue the topic of supply chain management in the healthcare sector of Pakistan by analyzing the XYZ organization.

METHODOLOGY

RESEARCH DESIGN

Although the research on which the topic is based is related to the qualitative technique and the strategy that we will adopt will be exploratory. The study which we will be doing is the secondary type and to understand the reasons for a particular process that is to be a part of the system also, we can identify the problem by gathering subjective data i.e., thoughts, opinions, or beliefs (Wyse, 2011). Furthermore, this study is a single method i.e., only qualitative techniques and procedures will be adapted. Therefore, data collected in this research will be done with the help of observations and data collected with the help of a questionnaire. The carried-out research will be analyzed to gain insight to find the issues which are there during the implementation of supply chain management through procedures done by management and their strategies, customer relationship, and the performance of the organization. Since there are necessary benefits that will be obtained from supply chain efficiency like speed in response and the control over waste elimination and the networks of information that are in between suppliers and the customers. (Fisher, 1997; Pin, 2001; Heikkila, 2002; Cigolini et al., 2004).

RESEARCH APPROACH

In this research, we would approach the concerned people of that department and gain insights and knowledge by interviewing high profiles and filling out the questionnaire through staff persons. In this way, we will be analyzing whether the models which have been made by us can be applied or need some changes. All data which has been gathered through a questionnaire have been implemented in the case study through subjective analysis (content analysis) as the study has a qualitative approach. This analysis technique is used to make valid and replicable inferences by interpreting and coding subjective data i.e., text and other non-numerical information (Terry College of Business, 2012).

CONCEPTUAL MODEL

The conceptual model is used in this study to understand the system that was adopted, and this model is implemented in the health sector of Singapore. In the below fig, they have elaborated the conceptual model on which they are trying to work by taking three different examples of three different hospitals

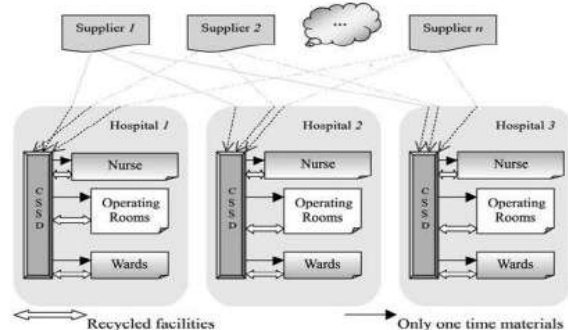


Fig:3.3.1 This conceptual model is adopted from “Supply chain redesign in the healthcare Industry of Singapore”

Author: Arun Kumar, LinetOzdamar and Chun Ning Zhang

The three hospitals’ scales are large, medium, and small. Periodically, the suppliers separately meet the requirements of the CSSD in each hospital according to orders and emergency needs.

A PROPOSED THEORETICAL MODEL APPROACH

In our country, the health sector has been divided into two components mainly, which are the public and private sectors. Since these sectors are constructed to provide quality care to the patients but according to observations and current scenarios most of them are not relying on or focusing on the implementation of supply chain management and through which they will be provided reliable and add value to the public health interest. Since we will conclude our study with the techniques through which the awareness of the supply chain would be increased so that the health sector could improve much more.

The most typical issue of hospital management in public and private hospitals and other areas related to it in developing countries is the rationale and the expense of logistics support services. They are expensive because of their services. In our country, the health industry especially related to the public sector constantly stands at the forefront of their financial problems. Keeping in mind the financial issues and to provide a support model for a limited number of resources, a proposed model is drawn which is designed to make hospital management more reliable and efficient. The hospital sectors are not doing enough work to prioritize techniques and tools including models, so focusing the study on the supply chain concept and their productive results as of time value and efficiency. Considering organizations that are small and medium in size which takes place in supply chains and thus displaying them conceptually and systematically model through which they will boost up their system regarding output and increase development and bringing them applicable towards practical protocols of the system in the sector is an important approach.

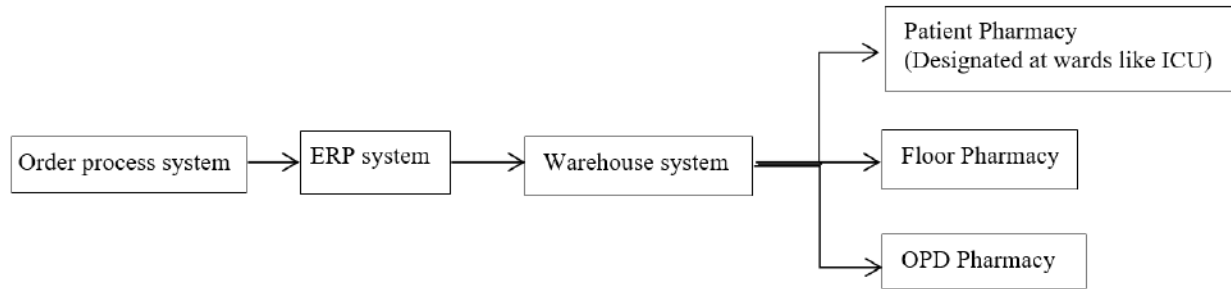


Fig 3.4.1 Order Process Chart

Since the market, there is a competitive environment around the globe and the organization are now trying to be more efficient by making their department and human resource much more aware and to kill full regarding new techniques and set, Although innovation related to the supply chain will also be added and the quality management practices would also prefer so that it would increase the service quality and products related to them so it will achieve the customer satisfaction level

The organizations that are trying to develop and make new techniques to become efficient in these areas by applying proper tools will result through collaborative innovations along with their suppliers to enhance the customer satisfaction level and their performance.

Although vendors of the products they will be supplying, they can provide a comfort zone or exceed the expectations of customers by providing them with high-quality products along with their best services. Cooperation with reliable suppliers is critical for the sake of improvements in performance and maintaining competitive advantages with others. (Lambert et al., 1997; Lin et al., 2005; Flint et al., 2008). Fisher (1997) suggested that the physically efficient process includes the process of the response of the market which is based on reliable criteria to select the best supplier so that the performance of the organization may go high.

PROCEDURE

The research started with the preliminary literature review of previous studies on the supply chain in the Hospital care sector. The research is already designed problem statement, research questions, and research objectives. After that, our research is supported by justifications and bound by limitations, and scope. Research methodology is developed through different tools like questionnaires (open-ended) and observations. Data collection is done through observations and interviews. The conclusion of the entire study is evaluated after various steps which are mentioned above.

PARTICIPANTS

Since this topic of study will be based on non-probability convenience sampling. This means that the participants will be chosen on the judgment of the researcher in keeping with the requirements of the study as well as availability rather than random selection (Laerd, 2012).

Although for this research purpose, the participants through which data will be collected include professionals that are currently working in the Hospital. Ideally, those professionals are from the supply chain department of their respective organizations or relevant department.

We will try to gain insights through hospital management will be interviewed to gain information related to the issues which they are occurring in their routines management adding the warehouse or store department which is responsible for the products distributions and other aspects which are related to them which face problems due to lack of management skills.

Interviews will be stopped at saturation level, i.e., the point when no new information is obtained from an interview, or the previous information gathered from the interview is now started repeating itself.

Research Instrument

This research is studied by using the Interview technique. The interviews are conducted with the help of a

S.No	List	Numbers	Remarks
1	Patient per year	169,150 approx.	-
2	Basic Inflation rate	12%	11 % in 2016, 10 % in 2017, 9% in 2018, and 8 % in 2019.
3	Revenue per Year	9%	Expected was 15%
4	Operating costs	Rs: 30 million	15 million in 2016, 18million 2017, 23 million in 2018
5	Long-term debt interest rate	7.5%	Annually
6	Gifts for construction /purchasing	Rs:10 million	Zakat/discount fund

questionnaire or interview protocol. The protocol is a checklist or guide for the interviewer to follow during the interview to ensure that all relevant information has been gained (Margaret C. Harrel, 2009).

Data Collection Procedure

The Interview protocol or questionnaire is adopted and modified. Furthermore, the interviews are conducted with each participant. So that the data collection is done through this technique. The ethical protocol will be designed according to the participants understanding level to gain knowledge smoothly without any hurdles.

RESULTS AND FINDINGS

Financial Aspect

Since the Hospital has various techniques to manage funds for the fiscal year below is the detail through which financial planning is being implemented in previous years: Table: Financial aspects

The above-provided record is based on values and information provided by the hospital management in which patients are cured in a year and the inflation rate is based on medical expenses which are increased every year or revised rate. The revenue per year, which was expected by the financial concern, operating cost which is present in day-to-day usage items, and other third-party staff.

To run the hospital and to purchase heavy machinery related to medical care debt has been issued by the institutions and other stakeholders in which interest amount is marked every year with the principal amount. Funds collected through Zakat and donations are also considered for patient welfare and to benefit them with different discount treatments.

The above is the breakeven analysis which is provided by the management, and this is the break-even of their units which are sold like medical items, and the revenue generated from the services they have provided is worth.

Current Scenario

In the current situation, the hospital does have a single pharmacy which is responsible for procuring items that are needed monthly and budget is issued by the pharmacist and the relevant doctors, and a purchaser is hired to purchase and maintain all the records because this helps the department to perform an audit of the funds for the fiscal year.

Finding

From the above analysis and data collected through questionnaires which are filled by the concerned persons we have come to the point that the model we are applying for the XYZ hospital is not completely fit due to extra resources which are used in terms of human

resource and the number of funds which are needed to be spent which would go above approximately Rs: 5 million in which a supply chain department will be established including an IT department through which an ERP system will be implemented for about 50 users and including accounts and finance department will be a part of it for reconciliation in the end of the year and the sake of information regarding transactions to the vendors against the supplies provided by them.

Proposed Supply Chain Department Labor Costs

S.No	Designation	Expected Salary	Quantity
1	Manager	Rs-200,000/-	1
2	Assistant Manager	Rs-100,000/-	2
3	Procurement Officer	Rs-50,000/-	4

4	Computer Operator	Rs-35,000/-	4
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The role of this department would be ensuring that the strategy of procurement and planning of the fiscal year would be done based on forecasting and demand which was in the previous year, although secondary responsibility will be applied that they have to make reconciliation and auditing of the items which have been purchased throughout this year and how they utilized and issue from store department to the floor pharmacies and till the consumer end.

Discussion

Since we have studied different literature on the SCM models and their implementation but still the main gap in this supply chain is that it is not a cost-effective technique it requires a highly skilled and qualified person team to promote and implement the practices regarding the supply chain in health care to meet the total quality management and quality care which is more valuable.

Implications

Although in this sector there should be a change which is needed to provide quality health care without any delayed time because this study is been designed to create awareness regarding the importance of supply chain management in the healthcare sector and especially in hospital management, to serve that purpose we have created a model which is supposed to provide better performance with suitable cost to provide quality care to the patient. In today's world, the traditional procurement terms and procedures are not of much value due to the lack of efficiency and management since new techniques should be adopted to serve the community and patients better.

Conclusion

Although we have developed different stages through which we can improve the way of ordering things and to make things better to keep accuracy in every stage. These include the specialized inventory management computer-aided online ordering system. The developed supply chain methods and their system improve material handling of hospitals, reducing inventory management expense and ultimately improving quality management which results in maximizing the quality care provided to patients. All departments should share information with the supply chain department to forecast the procurement of the upcoming fiscal years and it will help us to fully understand the benefits of supply chain management.

Since the research topic we have studied by observing the organization in which we have suggested the model of the supply chain be implemented to gain performance boost and efficiency related to their task and the process from purchasing to warehousing till providing it to the patient and to keep check-in balance with real-time tracking through the product description. Through this model, the organization will be benefitted in terms of procurement strategies and procedures regarding purchasing with the suppliers, including vendor management in which vendor check and balance will be supervised, warehousing techniques in which cubic utilization and material handling will be optimized through RFIDs, and another perspective. Through this research, we have gained information and observation in a practical environment and learned the role of supply chain management role in hospital management.

In the model which we have proposed though efficiency is improved but the issue would be that there would be a limited number of resources to implement these whole procedures. To do it with a limited number of resources along with less skilled persons who are present in the organization and to make them easily understand the procedures and the strategies which are related to their work in the future after the implementation. But for the sake of future directions some steps should be changed with time that are standards for exchanging information electronically must be established and adopted through the ERP system, Although the hospital is related to the health sector. As RFID (Radio Frequency Identification) technology changes instantly, we hope that the RFID technique will be adopted in the future for the identification of products in supply chain management systems in the healthcare sector.

Limitation

The common issue which we have observed is that the organization does not intend to put such an initial high cost into creating a department. The mindset of small and medium hospitals is not visionary enough for long-term sustainability. They are more profit-focused rather than quality provided to the patients. Although lacking skills is also a major problem and willingness to change the trends. In the current system, organizations tend to operate on low-budget and high-profit strategies and due to this they lack the efficiency of departments. The approval of the

budget for the fiscal year id depends on the amount of revenue which is generated in the previous fiscal year and because of this limitation new technology is a tough task to be implemented for the betterment of the organization.

REFERENCES

- Blandine Ageron, Smail Benzidia& Michael Bourlakis (2018) Healthcare logistics and supply chain – issues and future challenges, Supply Chain Forum: An International Journal, 19:1, 1-3
- Burali, P. S. (2013). Review paper on "Poka Yoke": The Revolutionary Idea in Total Productive Management. ResearchInvety: International Journal of Engineering and Science, 19-24. Retrieved from
- Carl J. McCann Annual Conference (2003): A Supply Chain Revolution: Understanding the Players, Proceedings of HIMSS.
- Chaerul, M., M. Tanaka, and A. V. Shekdar. 2007. "A System Dynamics Approach for Hospital Waste Management." Waste Management 28 (2): 442–449
- Gek Woo Tan, Michael J. Shaw, Bill Fulkerson: Web-based Supply Chain Management, Information Systems Frontiers 2:1 (2000) 41-55
- James H. Greene: Production and Inventory Control Handbook (1997) McGraw-Hill
- Karen Matjucha, Joe Burns, Terrence J. Noetzel, E-Procurement (2002): Energize Your Supply Chain, Proceedings of HIMSS Annual Conference 2002
- Narayana, S. A., R. K. Pati, and P. Vrat(2014). "Managerial Research on the Pharmaceutical Supply Chain–A Critical Review and Some Insights for Future Directions." Journal of Purchasing and Supply Management 20 (1): 18–40.
- Volland, J., A. Fügenger, J. Schoenfelder, and J. O. Brunner. 2017. "Material Logistics in Hospitals: A Literature Review." Omega 69: 82–101
- Whitson, D. (1997), "Applying just-in-time systems in health care", IIE Solutions, Vol. 29 No. 8, pp. 32-7.
- WullianallurRaghupathi, Joseph TanACM 45:12 (2002) 56-6: Strategic IT Applications in Health Care, Communications

DELINQUENT BEHAVIOR AMONG ADOLESCENTS: MODERATING ROLE OF PARENTAL INVOLVEMENT AND FAMILY FUNCTIONING

Shakil Imran

Riphah International University Faisalabad Campus
shakil.imran@riphahfsd.edu.pk

Abdullah Muddasir

Riphah International University Faisalabad Campus
H.abdullah@riphahfsd.edu.pk

Aqsa Abdus sattar

Riphah International University Faisalabad Campus

ABSTRACT

The present study was examining the relationship of Parental Involvement, Family Functioning predicting and moderating role of delinquent behavior among adolescents. Self-Report Delinquency Scale (naqvi, 2005), Intimacy Conflict Parenting Style (ICPS; Noller, Smith & Robert, 1992), individually administered to check parental involvement, family environment develop delinquency among adolescents. To mount up the relationship in above mentioned variables the Pearson Product Moment Correlation was used. Multiple Regressions was applied to check prediction. Male adolescents than female adolescents (with low socio-economic status) are more prone towards delinquency Results revealed that there was a strong relationship among delinquent behavior, family environment, and parental involvement. Furthermore findings suggested that healthy and positive bond with family; parents will become less delinquent behavior shows among adolescents (Juliana, 2000).

KEYWORDS: *Delinquency, Family Functioning, Delinquent Behavior, Parental Involvement.*

INTRODUCTION

Current study explores delinquent behavior among adolescents with the perspective of family environment (family functioning), and parental behaviour considered as social predictors of delinquency, dependent and independent variables were positively correlated (Amnah & Mustafa 2000). This research investigated the relationship of family life styles predicting delinquent behavior among adolescents. Individuals with the characteristics linked with the production of delinquent behavior. Individual causes like age and gender related disturbances, prenatal related complexities like birth time period showed in early childhood, on the other hands might not be happen until late childhood or in adolescence. Studies regarding criminal behavior continuously search out that the rates of offending begin at the stage of preadolescence (early adolescence) reach a peak in adolescence and throughout the young adulthood (Farrington 1986a, National Research Council, 1986).

DELINQUENT BEHAVIOR AMONG ADOLESCENT

Break rulers act on adolescence is closely universal in American children; many of these behaviors are mild and temporary, crimes remarkably consistent in different countries, boys with delinquent behavior from the age of 10 to 17, by the maximum level is in the age of twenty eight years old, self-report, offenders with the same sample from the ages of 15 and 18, then dropped on the age of 24. Longitudinal researches of boys of city Pittsburgh, the percentage of boys who told that their delinquent behavior rise from 5 percent to 6 to 18 percent for whites and 27 percent for blacks between the age of 16 (Lobber, 1998). The anti-social behavior and the consequences of the bad material related unhealthy offense act by adolescents, is due to the society setup and their norms for rich people separately and society setup and norms for poor, differently. It causes to develop delinquency anti-social behavior. Society should see and set the norms for adolescents to bring and nourish the healthy one and prevent and pretend from disorders which come from society (Bisera, 2002).

PARENTAL INVOLVEMENT

Relationship between the parents and its importance and then the delinquent behavior can be examined by the comfort and discomfort zone of child of his or her daily routine activities than the actual tracking behavior by the parents (Stettin & Kerr, 2000), observation by limited parenting, and adolescents spend less time with their parents and they are not controlled (Hirsch, 1969). un healthy negative bond of children with their parents at risk of setting a child

become delinquent which begin in initial time period teens, various delinquent actions consistently followed into adulthood (Moffitt, 1993; Patterson & Yoerger, 2002).

In adolescents one's who has an optimistic relationship with their fathers are less likely to be arrest or to belong to a gang and involve in irrational as compare to their peer one's with poor and less positive relationships to their fathers, with the increase of family poverty and risk of delinquency linked with the absence of their interlinked to other social problems. In 1990,s report the Department of Justice; those children came from authoritarian parenting become rebellious, abusive and more aggressive (Rehman, 1998).

FAMILY ENVIRONMENT

National Longitudinal data collection of health of adolescents (1995), the authors explain furthermore and investigate the effects of growing up in a two parent versus single parent family (single mother) delinquency in (single father) families too. This strategy help us to see the mechanisms through which live with single parent increase the delinquency, notably, and the effect is predominantly a function of parental absence parental gender. The results shows that adolescents in single parent families and neglectful parents having more delinquent than their counterparts residing with two biological, married parents, although these differences are reduce once the authors account it for many family processes. Moreover, family processes are the high level of delinquent behavior of adolescents from single-father versus single-mother families (Demuth & Brown, 2004).

Research included that critical measurements and analytic strategies has more intricate conceptualization of the relationship between family life like siblings and other family members and delinquency, all have important amplification for intervention with delinquents and their families. This review of research on the role of the family, it's based on family interventions with delinquent behaviors and the existing treatment outcomes and there search highlights four areas, the relationship between different family processes and delinquency the reciprocal relationships between parenting style and delinquent behavior, family affectedness the context on parenting and delinquency as one cause of delinquency among many (Carolyn & Susan, 1997).

SOCIAL THEORIES

BANDURA (1965) has demonstrated that aggressive behavior can be learned by reinforcement or imitation and modeling which come under social learning. Children and adolescents observed the behavioral patterns of their parents to each other, their peer sittings, cartoons all these major things bring a highlighted positivity or pessimism among them. Crime and violence which shown on televisions, at homes, among peers produce reinforcement to show any destructive or constructive behavior.

JULIAN ROTTER (1954-1982) contributes on social learning theories that behavior always occur and react in certain situation through learning imitation and observing. Behaviors produce through reinforcement, reinforcement might be positive or negative, when it will react as negative reinforcement it will automatically produce low self-esteem, and gradually it will lesser or higher with the passage of time and through experiments and learning.

DELINQUENT BEHAVIOR AMONG ADOLESCENTS: ROLE OF PARENTING STYLES AND FAMILY ENVIRONMENT

According to this research which was derived from Chinese culture and Chinese schools (Hong Kong) age from 14 to 19 and conceptualize that social theory social bonding theory labeling theory have effect on delinquency, low self-control is interlinked with delinquent in Chinese setting. Low self-control and many other factors (Peer Company, social setup, social interaction, stress full life events, and labialization from teachers and parents) cause delinquency and the delinquent behavior is also variate according to the culture of your social setup (Cheng & Chang, 2008). Juvenile delinquency is global problem now days; criminal behavior influenced by many major societal and psychological traits like poor and criminal peers, depressive, suppressive and neglected parenting and family atmosphere, unhealthy neighboring, uneducated or low educated social circle causes serious problems among children specially age from 12 to 18 years. Data was quantitatively analyzed. And check the delinquent's age, sex, family setup, family style, parent education, and heir socio economic status, and poor criminal peer pressure and then how low self-esteem easily noted down among delinquents. Results showed that there is highly positive correlation among all study variables; this study is applicable at Pakistani community (Kausar, Nadeem, Misbah & Fauzia, 2012).

OBJECTIVES

- To examine the relationship between Family Functioning and Parenting Styles predict delinquent behavior among adolescents.
- To identify the relationship of demographic variables among adolescents with delinquent behaviour.

HYPOTHESIS

H1. There would be a significant relationship of Family Environment and Family Functioning among adolescents with delinquent behavior.

- H2. Family environment would be positive predictor delinquent behavior among adolescents.
- H3. Parental involvement would be positive predictor of delinquent behavior among adolescents.
- H4. There would be gender differences in all the study variables.

METHODOLOGY

Study was consisted psychometrics properties of all scales were measured. In this study three translated scale was used; research design, sample, sampling techniques, instruments and procedure of data collection will be included.

RESEARCH DESIGN

In this study survey research design was used. Sample of this phase entailed adolescents (N= 700), collected from the Faisalabad division. The age range of the sample was 12 to 18 years.

SAMPLING STRATEGY

Convenient sampling technique was used to collect data.

INSTRUMENTS

INFORMED CONSENT FORM

It was used to assure that the data will be used only for the study purpose to obtain demographic information of the participation an appropriate demographic sheet was attached along with questionnaires. This information consists of gender, age, education, parent’s education, parent’s income.

SELF-REPORT DELINQUENCY SCALE

Scale developed by naqvi (2007) was used to differentiate between boys and girls having high SRD, five point linker scale with 27 items which are all positively stated .These are following dimensions, theft measured by (item no. 1,10,17,19)drug abuse measured by (2,8,9) lying measured by item no (20),noncompliance measured by item no(22),police encounter (14,25),violence (extroversion, vandalism, aggression) measured by item no(3,7,12,21,26,27) cheating and gambling (4,6,11,23,24), sex related (harassment, homosexuality, heterosexuality) measured by item no.(5,13,15,16,18).Scoring criteria is 0=never, once=1,2-4 times=2,5-10 times= 3,and 10 or more times=4.Cronbach’s Alpha was used for the self-report delinquency scale and find out .94.

INTIMACY CONFLICT PARENTING STYLES SCALE (ICPS)

ICPS originally develop by (noller, Seth smith, Mary, boumas, Ruth and Schweitzer Robert,1992) was used to assess the family functioning, 30 item scale and comprises of three sub scales intimacy ,conflict, parenting styles, items are arranged on a saw point likert scale response format arranging from 1=totally disagree to 6 = totally agree, subscale Intimacy items (1,4,6,10,13,15,18,20,23,26,27,29). Parenting Styles (2,7,11,16,21,25,28,30), 24 comprise the conflict factor. There is no reverse item. Alpha coefficients for the original sample were calculated at 0.92 for intimacy 0.68 for parenting style, and 0.82 for conflict.

PROCEDURE

First of all, principal and vice principal of private and Govt. schools and colleges of Faisalabad were personally contacted. After their permission, participants were approached in their class room. Instructions were given to participants about filling the scales. Furthermore, appropriate demographic sheet was attached at the top of each questionnaire to get necessary demographic information. The obtained data was then analyzed with the help of SPSS 20.

STATISTICAL ANALYSIS

Main objective of the pilot study is to examine the psychometric properties of instruments that are proposed to use in the main study, to achieve this objective multiple statistical analysis were conducted including descriptive statistics, item total correlation, reliability analysis and skewness.

TABLE 1
Correlation Matrix for all the Variables Used in the Study (N = 700)

Variables	N	M	SD	Range	Potential	Actual	Skewness	1	2	3
1 DB	700	98.64	16.50	.71	5-135	.035		-	.57**	.59**
2 FF	700	85.80	7.56	.86	5-150	.289				-

Note. 1 = delinquent Behavior (DB); 2= family functioning (FF)

*p< .05, ** p < .01, ***p< .01

Table no 1 show the co relational analysis of the study variables used in the present study. The analysis reveals that the delinquency and family functioning is significant and positively correlated with delinquent behavior.

Table 4
Parental Involvement and Family Environment as a predictor of Delinquent Behaviour among adolescents (N= 700)

Variables	Theft			Drug Abuse			Lying			Non.Compliance			Police-encounter			Violence			Cheating/Gambling			Sex related		
	B	Δ R ²	F	B	Δ R ²	F	B	Δ R ²	F	B	Δ R ²	F	B	Δ R ²	F	B	Δ R ²	F	B	Δ R ²	F	β	Δ R ²	F
INT	.40 ***	.16	81.4**	.28 ***	.18	51.3**	.37 ***	.15	41.6**	.17 ***	.06	15.0**	.27 ***	.27	88.7**	.28 ***	.18	52.8**	.11 ***	.05	45.2**	.40 ***	.28	94.8**
PS	.20 ***			.16 ***			.35 *			.13 ***			.19 ***			.24 ***			.33 **			.19 ***		
CF	.08 *			.16 ***			-.25			.03 *			.28 ***			.07			.23 **			.15 ***		

Note. INT = Intimacy, PS = Parenting Style, CF= Conflict Factor.

*p < .05, **p < .01, ***p < .001

Multiple regression analysis processed to check the effect on constructs of delinquent behavior on Intimacy, Parenting style, Conflict, factor showed that 26% of the variance resulted by a model comprising constructs of delinquent behavior i.e. theft. The drug abuse described 18% variance. Lying explained 15% variance, noncompliance 6%, police encounter 27%, violence 18%, cheating/gambling 31% and sex related 28%. It Represent that the model indicate positively significant among the predictors.

Table 5

Comparison of Male and Female adolescents on family function delinquent behavior among adolescents (N = 700)

Variables	Male (n = 400)		Female (n = 300)		t(695)	P	95% CI		Cohen's D
	M	SD	M	SD			LL	UL	
D.B	65.39	39.45	60.57	11.92	18.93***	.000	18.03	1.85	1.62
FF	67.84	47.64	70.71	4.27	15.62**	.000	7.57	2.10	1.15

Note. D.B= Delinquent Behavior; FF = family functioning;

*p .05. **p < .01. ***p<.001.

Results demonstrate the mean gender differences and effect size on Delinquency and other scales. The mean difference is found to be significant on self. Delinquency appraisal {t (695) = 18.93, p< .05}, family functioning {t (695) = 15.62, p< .01}, whereas female adolescents found to be lower delinquent behavior, and effect more male adolescents rather than female adolescents.

Table 6

Comparison of Father Income between thirty thousand and below and more than thirty thousand on Psycho-Social predictors of Delinquent behaviour among adolescents (N = 700)

Variables	Thirty thousand and below (n=355)		More than thirty thousand (n=345)		t(695)	P	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
D.B	70.20	15.21	72.57	11.39	-7.26***	.000	4.24	1.85	.42
FF	74.90	6.24	110.20	19.92	-2.67***	.000	7.57	2.10	.32

Note. D.B= Delinquent Behavior; FF = family functioning;

*p .05. **p< .01. ***p<.001

Results in Table 15 demonstrate the mean Father's income and effect size on Delinquency and other scales. The mean difference is found to be significant on self. Delinquency appraisal {t (695) = -7.26, p< .05}, family functioning {t (695) = -2.67, p< .001}, implies that low Father's income below thirty thousand were higher on delinquent behavior.

CONCLUSION

In this research check the relationship of parental involvement, family functioning and peer pressure among adolescents with delinquent behavior. Role of gender, father income was also investigating. The goal of the study was fully supported that the social predictors i.e parental involvement, family processes predict delinquent behavior among adolescents. Most of the hypotheses in the study were showing the desired results. Present study also explored the gender differences as well as the role of socioeconomic status of delinquent behavior among adolescents. The findings

confirm that male adolescents significantly scored high on parental involvement, family functioning with delinquent behavior as compare to female adolescents.

DISCUSSION

Main study with 700 adolescents and some demographic variable (i.e., gender and father income) was also explored. Main study also examined the psychometric properties of all scales. The data was analyzed statically in term of mean, standard deviation, correlation, regression, t-test, one-way Anova, Cronbach's alpha reliability was applied. All hypothesis was supported in the study. In the present study seven major variables (including independent variable, dependent variable), studied to observe the effect of parental involvement, family environment, and then the tendency of these aspects shows delinquent behavior. Results of present study showed the significant correlations among all four study variables among adolescents with delinquent behavior. The correlations were directed in the desired direction (Mustufa, 1998). Erick Erickson the adolescent's age from 13 to 21, Identity vs. Role Confusion, it is the fifth stage of development, adolescent must struggle to discover his or her identity. And understand the social interactions, psychological interaction and how to fitting in, and to develop the sense of moral values, right from wrong. Those who aren't successfully reach on this stage, become having avoidant personalities and violent, confused personalities, as an output they act any criminal activity and show delinquent behavior at teen age or young adulthood called delinquency.

Reliability analysis was run to check the psychometric properties of the questionnaires which were found to be satisfactory. Correlation analysis was run to check the relationship pattern between main variables and their subscales. Multiple regression analysis was performed to check the impact of development of delinquent behavior due to parental involvement, peer pressure, family functioning. After reliability analysis this study addresses the frequency of demographic variables and percentages. The percentage of adolescent's age ranges from 12 to 18 years, greater than the female participants. Father's income was greater in percentage than the Mother's income (Ismat & Ali et al., 2001), it is also concluded that from the age of 13 years to 22 years old adolescents, cross sectional and parametric analysis was used in this research, gender difference and self-reported issued determined at this study . According to the results female adolescents had hidden confusions and limited behavioral reactions, female showed less behavioral issue (delinquency), at the same time they have psychological and social issues and there were a significant level observed during the research (Mckan et al., 1998), findings revealed that family functioning positively correlated with the delinquent behavior among adolescents. Multiple regression analysis between family environment and delinquent behavior among adolescents positively predict; unhealthy negative relationship and interpersonal conflicts with siblings, other family members increases and neglected, pessimist parenting cause the delinquent behavior among adolescents (Subtageen et al., 2004). Patterns of pleasant and unpleasant contacts were related to the development and set of family environment of adolescents. Negative family setup has damaging interpersonal relationships among siblings and other family members. Therefore it can be concluded that family environment is the core source of developing delinquent behavior among adolescents. National Longitudinal data collection regarding mental and physical health of adolescents (1995), the authors explain furthermore and investigate the effects of growing up in a two parent versus single parent family single mother delinquency in single father families too (Eden, 2017). Results showed that adolescents with single parent, broken families and neglectful parents having more adolescents with delinquent behavior than their counterparts residing with two biological, married parents, although these differences are reduce once the authors account it for many family processes. Moreover, non-serious, violent family processes face high level of delinquent behavior among adolescents (Brown, 2004).

Parental involvement consequences among adolescents. The study investigated the impact of parental involvement on adolescents' behavioral, social, and psychological issue. Mofit (1993) theorized that negative parental involvement increases high level of delinquent behavior among adolescents. Controlled or strict parenting, un healthy negative bond of children with their parents; at risk of setting a child become delinquent which begin in initial time period teens, various delinquent actions consistently followed into adulthood . According to Adrian there are strong evidences that parental intensely causes behavioral problems like anxiety depression and other behavioral and social problems .Strict, ignored and violent relationship of parents with their children positively significant with delinquent behavior and it would be stronger than the link between the week parental observations and the delinquent behavior. Children and parents are active stimuli in process of the link between knowledge on whereabouts of the child and delinquent behavior (Ahmad, 2009).

REFERENCES

- ACT for Youth Upstate Center of Excellence (2001). Research Facts and Findings: Peers, like family and life development Center, Cornell University. American Psychiatric Association Diagnostic and Statistical manual of mental disorders.
- Amnah & Mustafa. L et al., (2000) Predictors of delinquency among adolescents and young adults: A new psychosocial control perspective: *SAGE journal*.
- Angela,S.Mak (2016). Adolescents' delinquency and perceptions of parental care and protection: A case control study. *Taylor & Francis online.11* (5), 193–210.
- Amergon, S .(2011). Delinquency and Aggression among children, adolescents and young adults. *Western Psychological Services,12*(3), 100-120.
- Ahmed, Q. (1965). Bahavioral modification by social leanings. *Western Psychological Services, 2*(3), 12-30.
- Brown.,(2004).Causes of anti-social behavior of adolescents. University of KneginjeMilice. Trstenik Serbia *ISSN*.
- Bandura, B. K. (1965). Adolescent socialization, social imitation with context-The role of connection, regulation, and autonomy in the family. *Journal of Adolescent Research, 12*, 5-11.
- Bisera, D. P., (2002). Early predictors of adolescent aggression and adult violence.*Journal of psychol, 3*(2),79-100.
- Carolyn, A. Smith, Susan, B., Stern (1997). Delinquency and Antisocial Behavior: A Review of Family Processes, peer pressure and Intervention Research. *Journal of Social Service Review, 71*(3), 382-420.
- Cheng & Chang (2008). Delinquent behavioral factors among adolescents with the relationship of peer pressure and family living styles. *Journal of Storify.com,71*(3), 382-420.
- Dermuth & Brown (2004).Adolescent Risk Taking behavior and Brain Development: Implications for Prevention. *Dev Psychobiol, 52*(3), 263–276.
- Eden, (2017). Adolescent Risk Taking behavior and neurological Development: Implications for Prevention. *Dev Psychobiol, 82*(8), 263–280.
- Farrington, D. P., Violence & Vict (1989).Early predictors of adolescent aggression and adult violence.*Journal of psychol, 3*(2),79-100
- Gottfredson, A. M. (2014).Dimensions of emotional maltreatment of school adolescent at homes: Implications for counseling practice, *journal of Kenyan psychology Professional Association.74*(34), 176-189.
- Hirschi, T. (1969). Consequences of delinquency, Impulsivity and delinquent behavior among incarcerated adolescents. *Journal of sociology, 33*(2), 18-200.
- Ismat.G & Ali.D (2011). Conflicts between parents and aggressive and delinquent behavior in children. *Journal of criminal psychology,23*(1), 20-5.
- Jullian Rotter.D (1982). Conflicts between parents and aggressive and delinquent behavior in children. *Journal of criminal psychology,23*(1), 20-5.
- Juliana R., & Rotter. H., (2000). Adolescents and Behavioral Sciences among Delinquents. *American Journal of psychology, 90*(2), 396-410.

- Kauser, H., Misbah, W., Nadeem, H., & Fauzia, W. (2012). Psych-Social factors of criminal behavior among adolescents. *Journal of Social Research*, 22(33), 121-143.
- Lawson (2007). Identity Confusions among Adolescents and the role of Socio Economic Status as a Moderator. *American Journal of psychology*, 30(13), 234-303.
- Ismat & Ali, et al. (2001). Self-esteem in a broad-spectrum approach for mental health promotion. *Journal of Adolescents Personality and assessment*, 24(19), 85-90.
- Mustafa & Hashimoto (1998). Correlations among self-esteem, aggression, adverse childhood experiences and depression in inmates of Female juvenile. *Journal of Psychiatry Clin Neurosci.*, 63(4), 478-85.
- Mofit & Patterson H. et al. (2008). Impulsive and Callous Traits Are More Strongly Associated With Delinquent Behavior in Higher Risk Neighborhoods Among Boys and Girls. *Journal of Abnormal Psychology* 117(2), 377-385.
- Malik, S., Alim, W. & Mohsin, Z. (2007). Psycho-Social Predictors of Criminal behavior of young adulthood and late adulthoods. *Journal of Psychiatry Clin Neurosci.*, 43(4), 78-85.
- Mofit, (1993). Links between Depression Symptoms, Delinquent Behavior, Self-Esteem and Family Environment Variables among Adolescents. *Social work research journal*, 13(1), 11-19.
- Noller, W. Smith, & Robert, et al., (1992). Intimacy Conflict Parenting Styles Scale processes. *Journal of Youth and Adolescence*, 37(4), 412-3214.
- Stattin, H. & Kerr, M. (2000). Parental monitoring interpretations. *Journal of Abnormal Child Psychology*, 71(4), 1072-85.
- Subtageen, H., Femeeda, W. & Kulsoom (1999). Social and psychological Factors of delinquency among young youth. *Center for Youth Development*, 20(14), 89.