DISCONNECT/GAPS BETWEEN POLICIES PRACTICES & ACADEMIC RESEARCH: A CASE OF GOVERNANCE AND PUBLIC POLICY DISCIPLINE

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Disconnect/Gaps between Policies Practices & Academic Research: A Case of Governance and Public Policy Discipline

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **Disconnect/Gaps between Policies Practices & Academic Research: A Case of Governance and Public Policy Discipline** submitted by me in partial fulfillment of my M.Phil degree, is my original work and has not been submitted or published earlier. I also solemnly declare that it shall not, in the future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Disconnect/Gaps between Policies Practices & Academic Research: A Case of Governance and Public Policy Discipline

This study aims to investigate and analyze the Disconnect/gaps between policy practices and academic research. Academic research can play a vital role from policy formulation to policy implementation. This study is purely based on a qualitative approach. The study uses qualitative type in order to investigate the stated research questions. For this purpose thematic analysis is used. For the data collection, 7 interviews and one focus group discussion were conducted in order to collect the data from the institutes of Rawalpindi and Islamabad. By using the thematic analysis technique we transcript the data in order to generate codes. After the generation of initial codes, we converted the data into modules, and then we were able to develop themes and sub-themes. Then we did a comparison and discussion with our literature review. The findings of this study reveal that the issues are still there. Some of the major issues are, lack of resources, lack of communication between institutes, struggle towards power, old education system, old curriculum, untrained faculty and academia, the distance between stakeholders due to lack of coordination, and no proper and handsome budget for education. The factors identified that the active participation of stakeholders to reduce the gaps between policy practices could be enhanced by creating awareness, coordination, capacity building, trained staff, and proper utilization of resources to update the education system and curriculum. It is recommended that the institution's capacity must be enhanced by minimizing bureaucracy interference, ensuring good governance, and creating awareness and strong coordination and transparency in decision-making.

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CHAPTER – 1: INTRODUCTION

1.1 Background of the Study

Universities are trying to combine teaching and research since the early ninth century in developed countries. Universities are gradually considered to be central actors in the policy-making processes of all countries. The direct involvement between universities and industry has increased in the last decade, and policies have been designed to promote university-industry networking. However, academia cannot achieve its primary goals of knowledge creation and dissemination in isolation. Synergies between academia and Industry secure and influence additional resources for education, promote innovation and technology transfer and ensure that graduates have the skills and knowledge required to effectively contribute to the workforce (Wu). In this research the researcher will try to explore gaps between policy practices and academic research.

University-Industry (UI) partnership is a relatively new phenomenon that emerged during the past century and has strongly expanded in scope and number over recent decades. University-industry linkages cover a large range of diverse realities in both teaching and research, from the more traditional, such as student placement schemes, staff exchanges, consultancy services, continuing professional development, joint research and research and development R&D, to recent areas such as small enterprise development the creation of spin-offs for the joint commercialization of academic research from universities and policy industries for the development of consortia for collaborative academic research and development of policies at the international level. The industry academia interactions are rapidly moving towards the forefront of policy making, planning and management. With the ongoing economic reforms there has been a dramatic change in the economic and business environment confronted by industries, academia and public laboratories-protection is getting replaced with competition, controls are giving way to liberalization, and import substitution is replaced with export promotion and globalization (Schiller & Brimble, 2009).

Academic research (AR) is essential to build knowledge, facilitate efficient learning, to understand and dig out the various issues. Academic research used by policy industries creates long-term effects on the development of nations and it can play a significant role to promote and create innovation in policy industries (PI) especially to generate new products and technologies (Saleem, 2018). According to world population review, Pakistan is one of the largest populated country of the world in 2021 having 225,199 million people. It is very difficult to sustain economic growth for developing economy. Some of the Asian countries like

China, India and Thailand really worked hard to strengthen academic industries linkages improved their economic conditions (Prasad&S.Bhat, 2021).

For policy industry (PI), it is important for the industries to bring innovation through academic research and policies practices in order to meet the needs of the people as well as to compete in the society. However, policy industrial growth is not possible without involvement of research. Economies can grow to apply latest and modern technology, division of labor and manage industry very smartly and scientifically. Therefore, production and employment will increase rapidly by bringing economic growth (Waikar&Kushare, 2017). Academic research can help to increase economic growth by producing new knowledge, techniques, and technologies. When there is change in technology, people can produce more with minimum resources, increasing productivity always have positive impact on economy (Gashaahun, 2020). Study shows there is a strong linkage between government, academia G&A, and foreign affiliates in Tanzania, but weak linkage between academia and industry and this is why as a result, the unemployment and the ratio of poverty was very high (Kaijage, 2007). Policy practices defines as an efforts to change policies in legislative, agency, and community settings, whether by establishing new policies, improving existing ones or defeating policy initiatives of other people. Universities are considered as essential players in knowledge-based economies. It is expected that universities are playing key role in sprucing scientific change and innovation. The idea is 'teaching university' has far gone in developed countries, they worked very hard towards entrepreneurial institutes. For instance American universities are considered as one of the leading universities in the world empowered with green university that means a student must implement the knowledge that have been qualified and taught by the university (Ashraf et al, 2018). Many European, Asian, and Latin American universities are still following the same outline in different disciplines in different countries. But still, their position has not yet been oppressed. The development of academia and public policy industry associations, it helps not only within a country but also has a very positive impact internationally on academic research and policy practices which can help knowledge institutes to transfer knowledge and technology at its best. For all this, claimed that entrepreneurial and research culture within institutes should be developed and promoted. (Ashraf et al, 2018). Through knowledge, skilled labor can be produced according to the industrial demand of the region (Ashraf et al, 2018). Knowledge technology can bring more innovations in society and can contribute to the economic growth and success of countries around the globe. Therefore, the government of developed or non-developed countries is always trying to enhance academic research through innovation policies (Ashraf et al, 2018).

1.1.1. Context of Pakistan

Pakistan is a country where still a lot of developments needed to be done in (AR) and policy practices. The education system is adopted by the British education system and still, needs modifications an updated education system research culture is adopted by universities yet. The role of Government is very important in the development of linkage between academia, and industry. Universities are considered talent, capability, and knowledge centers, and knowledge leads to innovation and creation so knowledge can play the role of bridge between university and industry. Knowledge comes with academic research. Academic research always acts as a concrete bond between institutions and stakeholders. But the major issue is many students do not get jobs after completion of their studies. One of the major reasons is they are not familiar with practical knowledge and experience. This is important that universities should create a strong link. For this, they should start internship programs with the collaboration of industries by inviting experts and professionals from the industries to hold talks, dialogues, seminars, and conferences. Academic research can also support industries for problem identification.

1.1.2. Academic research

Knowledge creation refers to academia and research institutes. Shifting knowledge is a very vast and wide term. And also it includes industry and university linkage and collaboration. Academia is always playing the role of guidance, helping, finding the issues, and proposing solutions. Hence, investigating current industry-academic links in the twin cities is very important to accomplish efficiency and industrial effectiveness in Islamabad Rawalpindi. However, a review of the existing literature on academia-industry-government found that there is not enough information available on university and industry developments. Therefore, there is a need to find out more opportunities associated with the linkage between industries and academia in order to promote and enhance academic research and policy practices. The information and data gathered and generated from this study are not only helpful for the higher education of Pakistan but also will be very useful for academia, researchers, industries, and professionals (Prager & Omenn).

At this time the world is moving towards a knowledge economy because in this kind of setup knowledge is the basic and fundamental need and source to grow the economy. But this is not possible without strong developed and established educational institutes. Universities are playing a vital role to improve current knowledge and bring

new creations, innovations, and ideas through academic research. Because now the world is increasing the trend of trading among different countries. In order to improve and fulfill this need and accomplish this goal industries need the latest and modern technologies to add value to trading, their products, and services. There are a lot of multinational companies that work for this. Academic research is very important to identify the needs and demands of society and its people. Research can give knowledge and ideas to do one thing in different multiple ways which are more productive, time-saving, and off course cost-saving as well. Therefore, it's the need of time that the world is moving towards a knowledge society (Gashaahun, 2020). Universities' expectations are increasing and also universities can get financial assistance in return for proving services like conducting academic research on different topics. Hence, the demand for innovation and new knowledge is very high now. Universities with research and development can contribute towards innovation and new knowledge. Industries and services require the latest technology system to do work and get things done in a short span of time. This is only possible to have a highly skilled workforce who has the expertise, knowledge, and creative thinking to complete a task (Iqbal, Jalal & Mahmood, 2018).

The wide opportunity and space of research and knowledge indicate that the economy is getting more knowledge-centered and knowledge innovative. Industries that promote analytical knowledge those industries are technological industries but technical and innovative industries need man-made and representational knowledge. In such situations, knowledge can come through academic research and could better make use of knowledge and can implement in industries (Ashraf et al, 2018). Academic research includes a detailed, deep, and thorough study and investigation into a specific or selected topic. Most of the time a researcher will be required to inspect and investigate academic sources when implementing the indicated by the instructor. Academic research is an energetic element of the general political, economic, and social needs of any country it allows a researcher to analyze and find out the answer to the question on a specific topic. Pakistan's government is now struggling to promote and add value to research that is energetic active problem-solving and advances and helpful in the development of research culture by supporting researchers and help of international academic practices (Ashraf et al, 2018).

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1.1.3. Policy practices and Policy industries

The PI usually talks about the arrangements and struggles among different organizations. The aim and purpose is to identify and raise societal issues, highlight the demands of the people, promote and enhance businesses, do creativity in different discipline by allowing researchers to do their job at best, and propose a solution through research. Usually, policy industry and governmental relationships are strong governments give them projects and assign them tasks to help the government to work together to resolve a particular issue or do research and developments.

The industry has developed over the recent years and having such a wide variety of coverage regarding its definition, the public industry is by nature, a mixture of restraints and multidisciplinary institutes that depends deeply on strategic communication. It is very much associated with lobbying groups, this is mostly what some part or group of practitioners do. Public policy industry major work includes the identification of problems, development of strategies through research, strategies, and planning, and providing advice. Several types of organizations almost widely interrelate and link with people directly within their country, origin, or community to build up an active and useful set of relationships. Trades, direct foreign investment, political associations, serious global issues, the flow of information and knowledge, social networking, and some other spectacles, and also growing the difficulty of those relations intensely.

Most of the organizations that public policy is very useful for them those organizations are big companies, charities, trade unions, membership organizations think tank interest groups. They have people who are working for them or they hire and consult with public policy institutes who can work for them but this is always a contractual arrangement between different organizations and the public policy institutes or industry. The people who are professionals and experts in a particular field they will be asked by different organizations to conduct research on a specific topic. Public policy has a global impact and this is very essential to view it through the lens of the perspective of the nation where policies are being practiced and exercised. In this study, the researcher are going to talk about two public policy institutes that are working on research and helping the government to identify the issues and propose solutions through public policy.

1.1.4.   Collaboration of policy industry and academic research

Higher Education Commission (HEC) can play a vital role to eliminate the gap through the linkage between universities and industries. Recently HEC has also announced industries and universities support program to create a bridge between industries and academia. For example, university Industries Technology Support Program (UITSP) of HEC is an important step to create support and coordination between academia and industries. The purpose is to focus on industrial area where country can contribute to world trade more efficiently. Technology Transfer Support Fund (TTSP) was announced and implemented by higher education of Pakistan. The TTSP purpose is to provision corporations between academia and industry to facilitate the transmission of university developed technological research to industry and the commercial area. The Grand Challenge Fund (GCF) is a program supported by the World Bank and implemented by HEC. The purpose of the research conducted in GCF projects is focusing on challenges associated with the significance thematic areas. This program will support large, multidimensional research projects. The Local Challenge Fund (LCF) is an important part of the Higher Education Development Project which is funded by the World Bank and executed by HEC. The LCF purpose is to support different academic research projects that address relevant social and economic issues (and also to identify and address topics related with the Sustainable Development Goals (SDGs), and will provide funds to selected institutes based upon a competitive, reviewed evaluation of proposals. HEC and policy makers are well aware of importance of different programs but the research gap is they are not aware of real issues at university and industrial level that is why these policies are not bringing up fruitful results.

1.1   Problem statement

Research can be used as an instrument to adjust a policy, without having strong relation between researchers and policymakers an effective and efficient policies cannot be produce and practice. Public representative and policy makers' job is to highlight the issues in a society and make policies accordingly, while research is very important to identify and dig out the real issues and convince policy makers to formulate the policy accordingly. Once policy is formulated then next step is to implement the policy efficiently. Academic institutes are centers of research, but by many accounts, policy makers do not use academic research to its fullest potential. It is very important to know the gaps between academic research and policies

practices. Findings of the data will be collected through interviews from the sample is practical to the people of Rawalpindi and Islamabad to the relevant universities who offer Governance and public policy program. Time of this research is 6-8 months onward from December 2022.

1.2   Research Gap

There are numerous studies regarding industrial and universities linkage, all over the world. They primarily focus on industries academia linkage, of technology, business etc. However, there is limited literature available on challenges of industries and universities linkages that is why there is a gap/disconnect between policies practices and academic research in governance and public policy discipline in case of Pakistan. Some of the previous scholars highlighted that research should investigate the challenges and issues of this area. In this study researcher makes an effort to fill this research gap and facilitate policy makers and implementers to bridge the gap between policy practices and research.

1.3   Research Questions

Research questions for the studies are:

1.4.1.   Main Questions:

What are the major gaps between academic research and policy practices?

1.4.2.   Deriving Questions:

(1)   What is the role of stakeholders, in bridging the gap between academic research and policy practices?

(2)   Why Universities-industry liaison is important in case of governance and public policy?

(3)   What are the structural barriers in policy practices and university-industry linkage?

1.4   Objectives of the Research

Overall purpose of this study is to know the present status of universities industries linkage and the specific objectives are:

1.5.1.   Main objective:

To identify the gaps between policy practices and academic research

1.5.2.   Driving objectives:

(1)   To find out the role of stakeholders in bridging the gaps between academic research and policy practices.

(2)   To identify how important is universities and industry liaison specifically in Governance and Public Policy (GPP)

<div align="right">(3)   To identify the structural barriers in policy practices and university-industry linkages</div>

1.5   Significance of the Study

The proposed study is significant because many researchers feels that universities industries linkage is absent in Pakistan (Hafeez, 2019). It means there are certain obstacles and challenges of universities and industries sides, due to these issues industries and universities linkages is very weak. Hence, to explore the issues it is important to identify the issues at both sides. This study is important to check both university and industry sides as industrialist are facing problem resolving social issues and services due to non-availability of skillful workforce, and technology. The professionals of policy making and bureaucrats of Pakistan are trying to reveal the causes of economic growth in Pakistan. Resolution of this research is to explore and find out the hurdles and challenges of universities and industries linkage. In this research formal, systematic procedure is sued to discover answers. There are countless benefits of academic research but this study will focus on how academic research can benefit industry and economy. Face to face interviews and focus group discussion is used for data collection from industries, universities (who offer Governance and public policy GPP program) and professionals from HEC in Islamabad. This research is beneficial for researchers, industrialist, and academia.

1.6   Contribution to the knowledge

The findings of this study will have theoretical and practical contribution. It will add to literature of this field by providing evidence for importance of gaps between policies practices and academic research in case of governance and public policy discipline. It will highlight challenges in this field thus giving a direction to practitioners and researches to resolve them in upcoming efforts on gaps between policy practices and academic research.

1.7   Delimitation of the Study:

Purpose of the study is to identify the gaps between policy practices and academic research and to dig out the issues faced by the universities and industries due to gaps between policies practices and research.

1.8   Scope and limitations of the research

Findings of the data will be collected through interviews from the sample is practical to the people of Rawalpindi and Islamabad to the relevant universities who offer Governance and public policy program. Time of this research is 6-8 months onward from December 2022.

CHAPTER – 2: LITERATURE REVIEW

Universities are considered essential players in knowledge-based economies. It is expected that universities are playing key role in science and health, information and technology, change and innovation. The idea is 'teaching university' has far gone in developed countries; they worked very hard towards entrepreneurial institutes. For instance, American universities are considered as one of the leading universities in the world empowered with green university that means a student must implement the knowledge that have been qualified and taught by the university (Ashraf et al, 2018). Many European, Asian and Latin American universities are still following the same outline at different disciplines in different countries. But still their position has not yet oppressed. By the development of academia and public policy industry associations, it helps not only within a country, but also it will have a very positive impact internationally on academic research and policy practices which can help knowledge institutes to transfer knowledge and technology at its best. For all this, claimed that entrepreneurial and research culture within institutes should be developed and promoted (Ashraf et al, 2018).

Pakistan's education system is very old and our education model was taken from Oxford University, which completely concentrates on the theoretical knowledge (Ashraf et al, 2018). Pakistan has issued its Innovation Policy in 2012 in which enormous attention is on academia and industries for the entrepreneurial activities. Some writers in Pakistan recommended accepting 'Triple Helix Model' but there is no progress on this area. COMSATS Institute of Information and Technology has recently established its University Industry linkages center and some of the cultivation centers, which result from knowledge transmission to technology transfer. Many universities in Pakistan conduct business plan competition and robotics competition despite these efforts by universities the benefits of Industry- University linkage (IUL) are not visibly contributing towards development of Pakistan. Since Pakistan came into being strong and pleasant, mutual working relationship could not be develop among academia and industry in Pakistan, there were couple of reasons involved (Jansen, 2023). The universities in Pakistan have traditional teaching institutions, which produce non-skilled, incompetent and untrained graduates, which are of no use of industry. In fact, universities could not develop a culture of academic research in a proper way in our campuses for obvious reasons ((Gashaahun, 2020). The innovation done in the universities entices huge response from industry. The symbiotic research associations between academia and companies enable both

entities to sustain growth in their areas. They benefit each other through university researchers for product innovations, faculty gain prestige through increased external research funds (Lederman, 2014). Ethiopia made a great progress intensifying area of education and industries. This outstanding and creditable expansion came at the cost of quality education, which is the main purpose of the educational institutes. During this period, they give less attention to University-Industry Linkages, Instead of physical infrastructures, such as roads, bridges, and railways, there purpose is to knowledge economy's infrastructure is the entrepreneurial university. (Gashahun, 2020).

Pakistan is very slow and behind in producing quality and competitive products, infrastructure, and research and developments than India and china. According to World Trade Organization industries must perform productive and good in order to compete with the modern world. For research and developments industries required human capital, skilled workers, laboratories, and latest machinery and structures. Network between universities and industry is significant, and linkage between these two stakeholders are increasing day by day. The linkage and networking is very critical component of efficient and effective national innovation system. Public policy can play a vital role for the collaboration of the universities and industries (Waikar et al, 2017).

Additionally, academia's part is very indispensable and crucial in order to increase their links to achieve quality, while industry, in return, also supports from the linkages and relations. However universities can also reengineer universities to improve the prestige and meet their financial requirements. For example, industry benefits through academia supplement companies and knowledge allowing, while academia meets its financial needs through these services and activities. Universities must be financially strong in order to compete in the society and produce skillful and quality graduates. For this purpose universities can communicate and signs memorandum of understand MOU's with industry who can help then in different ways financially in return of services and assistance provided by the universities. Both universities and industry bonding can increase and get more chances of opportunities and opening new venues for collaboration in different other sectors as well. Therefore, study aim is to discover more about to reducing the gaps between these two major stakeholders. Universities are considered talent, capability, and knowledge centers and knowledge lead to innovation and creation so knowledge can play the role of bridge between university and industry. Knowledge comes with academic research. Academic research always acts as a concrete bond between institutions and stakeholders. But the major issue is many students do not get jobs after completion of their studies. One of the major reasons is they are not familiar with practical

knowledge and experience. This is important that universities should create a strong link. For this, they should start internship programs with the collaboration of industries by inviting experts and professionals from the industries to hold talks, dialogues, seminars, and conferences. Academic research can also support industries for problem identification.

At this time the world is moving towards a knowledge economy because in this kind of setup knowledge is the basic and fundamental need and source to grow the economy. But this is not possible without strong developed and established educational institutes. Universities are playing a vital role to improve current knowledge and bring new creations, innovations, and ideas through academic research. Because now the world is increasing the trend of trading among different countries. In order to improve and fulfill this need and accomplish this goal industries need the latest and modern technologies to add value to trading, their products, and services. There are a lot of multinational companies that work for this. Academic research is very important to identify the needs and demands of society and its people. Research can give knowledge and ideas to do one thing in different multiple ways which are more productive, time-saving, and off course, cost-saving as well. Therefore, it's the need of time that the world is moving towards a knowledge society. This is good for universities because universities' expectations are increasing also universities can get financial assistance in return for proving services like conducting academic research on different topics. Hence, the demand for innovation and new knowledge is very high now. Universities with research and development can contribute towards innovation and new knowledge. Industries and services require the latest technology system to do work and get things done in a short span of time. This is only possible to have a highly skilled workforce who has the expertise, knowledge, and creative thinking to complete a task (Peter & David, 2022).

The wide opportunity and space of research and knowledge indicate that the economy is getting more knowledge centered and knowledge innovative. Industries that promote analytical knowledge those industries are technological industries but technical and innovative industries need man-made and representational knowledge. In such situations, knowledge can come through academic research and could better make use of knowledge and can implement in industries. Universities are considered talent, capability, and knowledge centers and knowledge lead to innovation and creation so knowledge can play the role of bridge between university and industry. Knowledge comes with academic research. Academic research always acts as a concrete bond between institutions and stakeholders. But the major issue is many students do not get jobs after completion of their studies. This is important that universities and industries should create a strong link to work together. Academic research can also support industries for

problem identification. UNESCO presented a significant plan to link the industry and university to produce a product of expert persons, who can intensify the economy of the society. There are some countries of both categories developing and developed that have strong and withstanding coordinated effort among industry and university. Therefore, they contributed to the financial development and innovative headway in their nations.

2.1   Governance and Public Policy

Governance means to organize, to direct things in proper manners. It is the process of decision-making or by which decisions are made or implemented. Governance can be used in some perspectives like corporate governance, international governance, national governance and local governance (Kaufmann, 2018). There are different formal and informal actors are involved in the decision-making and implementation of the decisions. Government is one of the actors in governance. In rural areas, for example, other actors may include influential landlords, different associations, cooperatives, non-governmental organization (NGOs), research institutes, religious scholars, institutions, political parties, and the military. But in urban areas, it is very difficult. At the national level different actors like, media, lobbyists, international donors, and multi-national corporations, are also playing a vital role in decision-making because they also have a strong influential power so they are influencing the decision-making process (Kaufmann, 2018). All the actors except the government and the military are part of civil society. Civil society is very strong and they also have an influence on the decision-making process (UNDP, 2014). Formal government structures are the ones through which decisions are made and implemented. In some rural areas, locally powerful families also make or influence decision-making. But those decisions are informal.

Government intervention through public policy can make a real difference. Government has a big role to play in linking policy practices and research. HEC is the platform whereby government takes initiatives to create this link where the market cannot created itself. Collaboration among industries and academia through public policy can bring variety of benefits, including cultivating talented personnel, accumulating high-tech knowledge, and generating a positive impact on industry in terms of sales and marketing, and its synergistic effect is immeasurable (Waikar&Kushare, 2017)

2.1.1 Good governance

Governance means managing countries' affairs at all levels whether political, economic, or administrative. Governance is the mechanism, process, or institution by which people or different groups put their interests, civil rights, obligations and mediate their differences. (UNDP, 2014). Good governance makes sure political, social, and economic significances are based on extensively looking at societal issues and also the voices of the masses, and the weakest are heard in decision-making and allocation of resources. (Kaufmann, 2018). In total there are eight major features in good governance. Which are listed below.

- Participatory
- Consensus oriented
- Accountable
- Transparent
- Responsive
- Effective and efficient
- Equitable inclusive
- Follows the rule of law

(1) Participation: Participation means both men and women are contributing in decisions. They should have equal rights, and opportunities to utilize their full talent and potential for the betterment of the society. Allowing people to participate is the beauty of good governance. People can participate directly or through legitimate and middle institutions or representatives. It is very important that in a democracy the concerns of the most vulnerable people who are actually part and the people who are facing those issues or have direct link with the policies in a society should not be forgot to involve them in decision-making. Participation shows freedom of speech and expression in an organized and developed society (UNDP, 2014).

(2) Rule of law: A reasonable and lawful framework should enforce and exercise. It is also necessitates of human that they need full protection of their rights, like women, children, and minorities. Justice and unbiased execution of laws needs a self-directed courts and an independent and honorable police force.

(3) Transparency: That means policy formulation or execution of policies are done fairly and follow rules and guidelines. Information should also be freely

available and accessible to all citizens and people who are affected by the decisions and execution. Information should also be spread and available for all people in easy and understandable language. All decisions should be like an open for all the people (Kaufmann, 2018).

(4) **Responsiveness:** Good governance requires that institutions and processes try to serve all stakeholders within a reasonable timeframe.

(5) **Consensus-oriented:** There are several actors and as many viewpoints in a given society. Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is in the best interest of the whole community and how this can be achieved. It also requires a broad and long-term perspective on what is needed for sustainable human development and how to achieve the goals of such development. This can only result from an understanding of the historical, cultural and social contexts of a given society or community.

(6) **Equity and inclusiveness:** A society's well-being depend on ensuring that all its members feel that they have a stake in it and do not feel excluded from the mainstream of society. This requires all groups, but particularly the most vulnerable, to have opportunities to improve or maintain their well-being.

(7) **Effectiveness and efficiency:** Good governance means that procedures and associations produce outcomes that meet the requirements of the public by utilizing the resources at their best possible way. The concept of efficiency in the context of good governance also covers the sustainable use of natural resources and the protection of the environment.

(8) **Accountability:** This is the basic element of good governance. Both government and private institutes and civil society organizations must be accountable to the people and to stakeholders for their actions. Accountability should be also for internal and for external stakeholders who are affected by the decision or actions. Accountability can be best applied and exercised with transparency and the rule of law.

2.1.2 Public Policy

Public policy is defined as according to Thomas Dye, "Public policy is what every government chooses to do or not to do" (Csulb, 2002). Public policy is described as the comprehensive area of government laws, rules, law court resolutions, and native rules. A lot of people and different interested groups are always trying to influence

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public policies and decision-making processes through the political process by supporting some personality's political parties or political groups (Varone & Hill, 2011). Masses always put pressure on the decision-making process through their representatives. It seems a good way to put a positive impact but it is not the proper and best way. People in power like political parties or politicians are not staying permanently they come for a period of time then they go, and their power and authority can be changed from time to time. Or sometimes they can be thrown out from power before time if democracy is not strong. Sometimes one political party starts a program that is good for the masses and society and every development program at least needs ten to fifteen years to bring a change in society (Yalmanov, 2021). But this is very bad and unfortunate when one party goes from power their programs and initiatives are closed and the new government does not want to continue the previous program just for their own interests. The best way is to create awareness among citizens and educate them to build an opinion when people beliefs are changed then automatically politicians, political groups will be change with them (Varone & Hill, 2011).

2.1.3 Public Policy industry

The policy industry usually talks about the arrangements and struggles among different organizations. The aim and purpose is to identify and raise societal issues, highlight the demands of the people, promote and enhance businesses, do creativity in different discipline by allowing researchers to do their job at best, and propose a solution through research (Yalmanov, 2021). Usually, policy industry and governmental relationships are strong governments give them projects and assign them tasks to help the government to work together to resolve a particular issue or do research and developments. The industry has developed over the recent years and having such a wide variety of coverage regarding its definition, the public industry is by nature, a mixture of restraints and multidisciplinary institutes that depends deeply on strategic communication (Varone & Hill, 2011). It is very much associated with lobbying groups, this is mostly what some part or group of practitioners do. Public policy industry major work includes the identification of problems, development of strategies through research, strategies, and planning, and providing advice.

Several types of organizations almost widely interrelate and link with people directly within their country, origin, or community to build up an active and useful set of relationships. Trades, direct foreign investment, political associations, serious global

issues, the flow of information and knowledge, social networking, and some other spectacles, and also growing the difficulty of those relations intensely.

Most of the organizations that public policy is very useful for them those organizations are big companies, charities, trade unions, membership organizations think tank interest groups. They have people who are working for them or they hire and consult with public policy institutes who can work for them but this is always a contractual arrangement between different organizations and the public policy institutes or industry. The people who are professionals and experts in a particular field they will be asked by different organizations to conduct research on a specific topic.

Public policy basically has a global impact and this is very essential to view it through the lens of the perspective of the nation where policies are being practiced and exercised. In this study, we are going to talk about two public policy institutes that are working on research and helping the government to identify the issues and propose solutions through public policy.

Hence, investigating current industry-academic links in the twin cities is very important to accomplish efficiency and industrial effectiveness in Islamabad Rawalpindi. However, a review of the existing literature on academia-industry-government (see Chapter 2) found that there is not enough information available on university and industry developments. Therefore, there is a need to find out more opportunities associated with the linkage between industries and academia in order to promote and enhance academic research and policy practices. The information and data gathered and generated from this study are not only helpful for the higher education of Pakistan but also will be very useful for academia, researchers, industries, and professionals.

2.1.12 Institute of Policy Study (IPS)

This is an independent and self-directed institute. It's not for profit making but civil society organization. Their aim is to promote and enhance policy-oriented research, and human and technological developments, in order to improve governance and have a better system of living. It also helps students and researchers by providing a platform for a discussion or dialogue, on different kinds of issues which could be national or international. It's been over forty-three years since IPS came into being. And it is continuously contributing to society and it has and greater impact importance on research and on policy issues. It also highlights the role of think tanks and democratic institutes.

Their vision is to do hard work as well as smart work in order to maintain sustainability. For this their major focus is on achieving their objectives which are possible through a wide range of activities like conducting seminars, conferences, holding talks, and roundtables on multi-dimensional topics and their outcomes and results. They also offer and work on making reports, periodicals, publications, interactions, and communication with different stakeholders, like policymakers, who do thematic analysis and capacity-building programs, political leaders, legislators, researchers, academia, media, and many other relevant stakeholders. The policy industry is very important because they play the role of bridge between the government and the masses. Their major areas of research are Pakistan affairs, international relations, Politics, leadership, science, technology, and social and management sciences.

The purpose is to develop an effective system of coordination among different institutes and stakeholders, local and international scholars. IPS not only conduct research for a specific discipline or area but also associates working and coordinating with different research activities in their respective areas. All programs are done and designed under the guideline and directed by National Academic Council. And this institute plays a very significant and key role by proving different policy guidelines, reviewing the plans, setting priorities, and evaluating. IPS also signed some MOUs of cooperation with different active organizations in order to enhance the research. They also offer joint research but this kind of intervention and communication always could be time specific, well-disciplined, active, and equipped with libraries, research environments, and other facilities where knowledge can be exchanged freely and easily. IPS also reciprocates with the different national and international institutes and also engaged with different expert professionals and scholars, to exchange and produce more knowledge.

2.1.13 Sustainable Development Policy Institute SDPI

This is an institute that was established in 1992 August by the suggestion and recommendation of the National Council Strategy (NCS) or also it is called Pakistan's Agenda 21. Basically, this is a social and economic development within the nationwide setting. National Council Strategy is a highly admired document, approved by the NC, they recommend the need of a self-governing nonprofit organization and assistance as expertise for policy investigation, development, involvement, and program review services. This organization is registered according to the Societies Registration Act.

The main feature and work are to highlight and promote issues in society and SDPI's aim is to:

- Arrange and organize policy advice, research, and support from a broad multi-disciplinary viewpoint.
- To ensure that policy implementation is successful in accordance with law rules and regulation
- To make civil society strong, and strengthen and facilitate interaction between civil society and government.
- To spread and disseminate research findings and information by using a proper medium of media, arranging conferences, and conducting seminars and publications.
- To bring a change towards sustainable development in Pakistan.
- Playing the role of advisory services for the public and private sectors, and different associated organizations.
- To take important and need-based initiatives and help the government to set an agenda.
- Organize policy-oriented research on maintainable and sustain growth through a wide multi-disciplinary viewpoint.
- To produce policy advice on different social matters.
- Promotion and contribution to firming the infrastructure for research to make and develop a research environment in Pakistan.
- Policy advice to the politicians and bureaucracy which is helpful to formulate a policy.
- To conduct policy discussion, and support in house, visits.
- Helps researchers and scholars with publications for research
- Helping different organizations with the correct and accurate dissemination of information.
- Helping the government with user-friendly policy formulation.
- More focus on sustainable policy making which is also good for the development of society.
- Chase the political system for unbiased and neutral decision-making.
- Promotion of a peaceful environment, social justice, and well-being within the nation and society.

- Helping generations with capacity-building knowledge sharing.
- To provide advocacy, and enabling environment for the research.

2.2   Role of HEC

Higher Education Commission HEC is helping to encourage and enable the universities to make research a top significance for a maintainable economic growth and future knowledge place. HEC is focusing on to giving motivation and help to the students and researchers to develop and enhance the quality of research. For this Higher commission of Pakistan is announcing different research programs. These programs are going to implement on both private and government universities. Research and development can help to dig out the issues in the society. Then those issues can be resolved through proposing good and more suitable proposals and solutions. The point is research is very important for a society and HEC is the body which is independent and can formulate policies and implement policies to maximize and promote the research culture. The purpose is to encourage the creative and talented academia, researchers, and scholars members to analysis into those areas to check the growth, expansion and progress of Pakistan.

For this purpose, HEC has established a centers which is called "Offices of Research, Innovation and Commercialization (ORICs)") in different universities to serve as a key point, incorporating all the research activities from development of research proposal to the commercialization of research products under a single umbrella. HEC has started working to organize the research activities of universities in order to ensure the availability of well-established and fully functional ORICs. These ORICs provide strategic and operational support to the research activities of a university and it have a central role in facilitating the outcome of the university's researches. The ORIC is also responsible for assuring that the quality of research reflects the highest international standards and advances. The ORIC is keenly involved in establishing linkages with academia, industry and the community through MOUs with local and regional industries. There are different stakeholders involve in universities like students, researches, faculties, and administration of university ,while in industry business community, skillful workers and customers are the major stakeholder. Recently HEC announced triple helix platform this is an initiative by HEC for government industry and university linkage. Which helps to connect scientist of Pakistani universities with professionals from universities and government. For this HEC is establishing 82 offices of research innovation and commercialization and 35 business incubation centers, and 40 technology and innovation support centers. HEC provided necessary tools like policy and technical and financial support.

HEC has taken all those mentioned initiatives in order to improve research and development at universities. No HEC is more focused on promoting access so all the researchers and students will have this opportunity and accessibility to apply for the research programs. These initiatives are ultimately creating a greater impact on the quality, competition, and production of universities' academic research. It also helps universities to improve their prestige and ranking around the globe. But at the same time now universities need more trained staff, faculty, updated curriculum, and the latest infrastructure. However, HEC also is dealing with some challenges and issues while implementing these programs. They do not have enough budgets and no cooperation from the staff, within HEC and universities as well. The major issue is institutions are not willing to accept change. It is very important for HEC to make a proper policy that is effective and helpful to accomplish these goals, at the same time HEC should have a proper and strict mechanism to enforce and implement the policy.

2.2.1 Thematic research grants program (TRGP)

Higher education sector of Pakistan is trying to improve the quality of teaching and developing research culture through different innovative ways. The point is research is very important for a society and HEC is the body which is independent and can formulate policies and implement policies to maximize and promote the research culture. The purpose is to encourage the creative and talented academia, researchers, and scholars members to analysis into those areas to check the growth, expansion and progress of Pakistan. Such reinforcement is very helpful to address the major and important issues but also finding those possible case studies and details which can be translated into national policies and targeted achievements. Furthermore, thematic research program purpose is to utilizing the innovative thinking of researchers in social sciences area. Following are the SOPs of the Thematic Grants Program TRGP- 2017-18

Objectives of thematic research grant program

- To address the problems that discourages the pace of Pakistan in encountering the advanced world.
- To identify all the avenues to promote the idea of innovation and commercialization of research production.
- Showcase material and details required for understanding of the readers, academics, and policy makers as well as for developing holistic development strategies.

- To promote diversity based researches

- To make sure continuity, implementation, and institutionalization of former research done under Thematic Research Grant Program.

- Altering the study into policies, degree programs, and publications, for extensive dissemination and application.

2.2.2 National Research Program for Universities (NRPU)

NRPU is a Research Program introduced by HEC for research grants on modest worth for high-quality scientific research projects that establish planned importance and cast impact to the local industry and society. The program is open for both basic and applied research. NRPU aims to motivate scientific merit and the advancement of knowledge by allowing researchers the freedom to formulate by themselves the research concept and method. The NRPU is made for the HEC, academia, administration, and management related with the project, and ORIC is helping to direct organize and implement this program.

2.3 Triple Helix Model (THM)

Etzkowitz (1993, 1995) idea of the concept of the Triple Helix is to create link between university, industry and government. This idea of the model has three elements of the study which is completed by Lowe in 1982. Model has highlights several elements and related issues in search the crucial problems for academia, teachers, supervisor, and researchers, raise the question about how the industry can help to minimize the gap among different stakeholders. This model is best for the economic and social development. This model is very important because it provides the best capitalizing synergy system by linking the three major stakeholders like government, academia and industries. This model can provide a platform through which institutes can come and work together at a point and bring innovation and developments in a society. Triple helix scholars still trying to develop theoretical foundations of triple helix model to bring and capture the dynamic of sustainable innovations in the society (Amaral & Cai, 2021).

In this research triple helix model is used because this is a qualitative research so interviews from relevant stakeholder were conducted. Thematic analysis is used to analyses the gathered data. Triple helix model is suitable for this research because all the stakeholders are come under triple helix like academia, industries government. Pakistan is a country needs more developments to be done in academic research. The development could be done by making proper strategies that are efficient and effective and it should be at the national level for

Government, academia, and industry. The triple helix model is very helpful for the development of the country. Now in Pakistan discussions and debates are started over the past few years in universities. Triple helix model is going to be discussed in detail by the researcher below.

2.3.1 Government

(1) **Innovative Universities:** The Triple Helix model provides a very important, crucial, and legitimate role to the Government for the effective execution of the model. Role of the government is to provide and establish innovative and entrepreneurial academic institutes. This will be a very challenging concept for the entire system whether it is from the administration of the government or the universities who are going to accept and develop this concept in universities.

(2) **Bureaucracy:** Bureaucracy is one of the most influential figures it could affect the Triple Helix model in Pakistan. The most stubborn weaknesses in that bureaucracy are technological capabilities, lack of interactions with the private sector, an ill-designed educational financial budget, and having no interest to develop a research culture in Pakistan.

(3) **Science Parks:** These are basically research and development institutions. It is very important to promote the Triple Helix model industries and universities. The need of making science parks is very crucial and high. These science parks can play the role of bridge between academia, government, and industry. Government of Pakistan needs to develop research and development institutions and science parks in order to develop and promote academic research by using the Triple Helix model.

(4) **Role of politicians or political parties:** The role of politicians or policymakers are very important they must understand the needs and problem of society, the private sector, and social or economic issues, in order to promote related institutions.

2.3.2 Academia

(1) **Information and knowledge:** The knowledge among all three stakeholders is deliberated as one of the mechanisms which can contribute to Pakistan's economy. This is very important to share information and knowledge among universities and industries by using the Triple Helix model. Academia and

industry should share their needs and both can sign some joint projects by the help of this model. Academia should arrange industry visits with the help of alliances and working together. This is how they would be able to know industrial problems which needed to be resolved with the help of experts. Knowledge creation refers to academia and research institutes. Transferring the knowledge is a very vast and wide term. And also it includes industry and university linkage and collaboration. Academia is always playing a role of guidance, helping, finding the issues, and to propose solution.

(2)   **To create linkage with universities:** Pakistani universities must create a linkage and interaction with industry in order to promote and develop a research culture by arranging workshops, seminars, and training for researchers and industry. Having good governance in universities can be very helpful for the development of the Triple Helix model.

(3)   **Sessional courses and internship programs:** Sessional courses are can play an important role in the academic sector. These are courses offered by universities that are good for both university students and industry. Students can learn and explore real work and knowledge

(4)   **Incentives for Research Students and Supervisors:** Academic researchers and students must be offered some reasonable incentives to motivate researchers and also these kinds of projects can help the implementation of the Triple Helix model in Pakistan. This model can create a strong relation between stakeholders.

(5)   **Network between institutions:** Linkages between institutes like industry university and government is always beneficial for the society basically these collaboration can make network. Where people can understand need and importance of each other. They can help each other in many ways and grow together if industries grow it will be a big contribution in economy and if universities can get success to increase knowledge and research then will contribute in education sector. .

2.3.3 Industry

(1)   **Industries and Academia Liaison:** Goals and target of industries are to compete in society to promote their businesses. In this research, we are talking about the public policy industry. The liaison between the university and the industry is very beneficial for both university and industry as well. University can help to bring new innovations in research in a different discipline. But in

the case of public policy academic research can help policy industries to identify and raise different social issues in society. This is how industries can get a full fledge quality research from universities and put pressure on the government to resolve the issues.

(2) **Skill and relevant knowledge:** There is a need for industries to have skillful and knowledgeable workers in the workplace. The Triple Helix model is very helpful in this regard it can help academia to create awareness about industrial needs. Internships and different training programs are very essential to mature this model. Industry and universities interaction are very important they can be enhanced through training, seminars, and workshops these kinds of interactions can bring the real issues in society to right place where researchers can take place and contribute and propose solutions.

CHAPTER – 3:
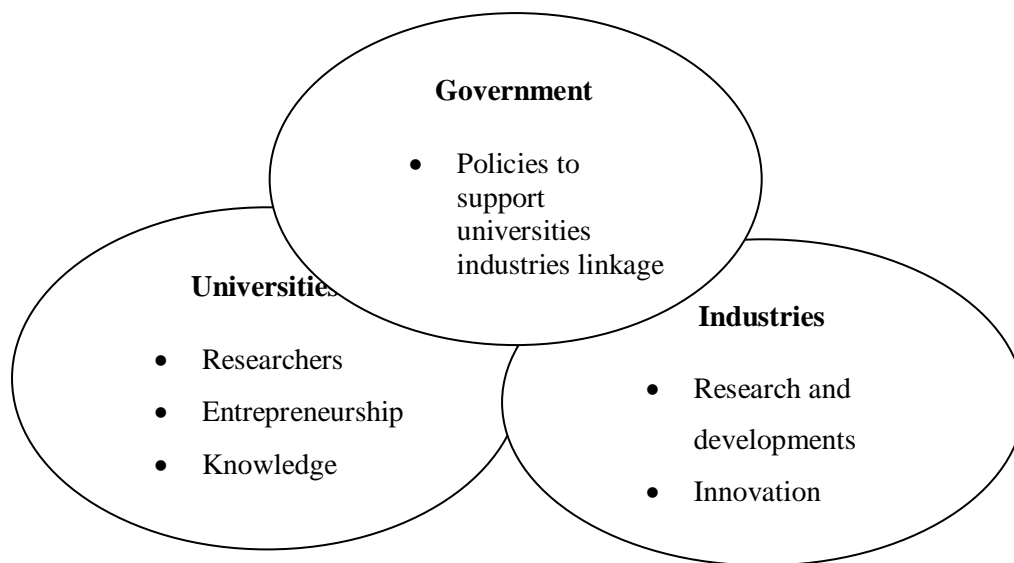# THEORETICAL AND CONCEPTUAL FRAMEWORK

The research framework provides a fundamental and strong structure or model to support the data collection process and efforts, which can motivate the researcher to structure the research on the basis of theoretical founding.

3.1   Theoretical Framework

A theoretical framework is a set of concepts, theories, definitions, and propositions that together form a structured, comprehensive view of a specific phenomenon (Jansen, 2023). A theoretical framework is a basic and opening review of existing theories that serves as a roadmap for developing the arguments you will use in your own work. Theories are developed by researchers to explain phenomena, draw connections, and make predictions. In a theoretical framework, researcher explain the existing theories that support the research, showing the researcher paper or dissertation topic is relevant and grounded in established ideas (Shona and George, 2022). The theoretical framework provides a foundational basis, or an anchor point for literature review, and most importantly, methodology and analysis (Nhan, 2020).A theoretical framework comprises the theories expressed by experts in the field into which a researcher plan to research, which a researcher draw upon to provide a theoretical coat hanger for the data analysis and interpretation of results. The theoretical framework is a structure that consist on concepts and theories, researcher develop from previously tested and published knowledge which is synthesize to help researcher have a theoretical background, or basis for the data analysis and interpretation of the meaning contained in the research data. (Kivunja, 2018).

After the literature review researcher is now able to develop a theoretical framework. In connection to triple helix model which was originally authored by Etzkowitz (1993, 1995) introduced an idea of Triple Helix model which is consist on the important stakeholders which university, industry and government. This idea of the model has three elements of the study which is completed by Lowe in 1982. Model has highlights several elements and related issues in search the crucial problems for academia, faculty, supervisor, and students, raise the question about how the industry can help to minimize the gap among different stakeholders. This model is best for economic and social development because it provides the best capitalizing synergy system by linking the three major stakeholders like government, academia and industries. This model can provide a platform through which institutes can come and work together at a point and bring innovation and developments in a society.

In this research triple helix model is used because this is a qualitative research so interviews from relevant stakeholder were conducted. Thematic analysis is used to analyses the gathered data. Triple helix model is suitable for this research because all the stakeholders are under triple helix like academia, industries government. Political system model is also very helpful to find out the answers of research questions and to support this research. Through system model government can make strong policies for universities and industries in order to promote research and find out the issues in the society. Government policies and all stakeholders comes under triple helix model has a direct and strong impact on the academic research.

Figure 1: Triple Helix Model

3.1.1   Government

Academia university and industry linkage cannot be done without the help of government so it has a vital role. Government's role is to develop entrepreneurial universities by providing funds, opportunity, and support of bureaucracy is essential. Similarly the introduction of Research and development, development of science and technology parks facilitates the process. Political system should also be very strong because political parties are coming and going in political arena they also change and tilt policies according to their own interests. However, all this is not possible until and unless political leadership involvement is there.

3.1.2   Academia

The knowledge spillover is a mechanism among university, policy industry and government to coordinate with each other and improve the economic performance. Researches should arrange regular visits of industry-university to identify the problem

specifically in governance and public policy domain. Sandwich courses are also good option to practice in Pakistani universities which can help graduates to understand the industrial culture during their education. This is how universities can also produce a quality graduate. Most of the students found practical and theoretical knowledge different they also perceive and work differently. So when there is a liaison between academia and industry there will be also a good combination of practical and theoretical knowledge researcher and students can implement their knowledge as soon as they learn. Academic research is very important and essential for the overall progress of universities as well as for industries. The main role of universities is to motivate and inspire students and researchers to do research in their respective areas. Research also effect and has an impact on community development. To establish a research culture in universities academia and universities should motivate students and equip them with all relevant resources and facilities. There should be a proper set budget in universities for research purposes in social sciences as well.

3.1.3 Industries

The policy industry usually talks about the arrangements and struggles among different organizations. The aim and purpose is to identify and raise societal issues, highlight the demands of the people, promote and enhance businesses, do creativity in different discipline by allowing researchers to do their job at best, and propose a solution through research. Usually, policy industry and governmental relationships are strong governments give them projects and assign them tasks to help the government to work together to resolve a particular issue or do research and developments.

The policy industry has developed over the recent years and having such a wide variety of coverage regarding its definition, the public industry is by nature, a mixture of restraints and multidisciplinary institutes that depends deeply on strategic communication. It is very much associated with lobbying groups, this is mostly what some part or group of practitioners do. Public policy industry major work includes the identification of problems, development of strategies through research, strategies, and planning, and providing advice. The diagram below presents a relationship between Government, universities or academia and industry.

In this model it's clearly illustrate that government role is very significant in order to promote industry university linkages. Government should formulate policies which can enhance and support public policy industrial growth. This government part is very important for many reasons it can help industries to contribute in an economy by cresting latest knowledge, procedures, techniques, models, in different disciplines. This model provide us foundation for research, whereby we will focus on these three stakeholders and the areas highlighted by Triple Helix Model for each will guide us to design all interview guide so that we are able to find answers for our research questions.

3.1.4 Political System Model

In this system different steps are involved these all steps are related to each other first of all there a demand in a society or issues in the society need to be resolved.. David Easton is the author of political system model, basically in this system decisions and policies are made by the professionals and relevant stakeholders and institutes. But the problem is there is always instability exists. Politicians and bureaucrats are always having problem with each other it's just because of power and their interests. This model is based on few steps in which are explained below. This model consists on few steps which are:-
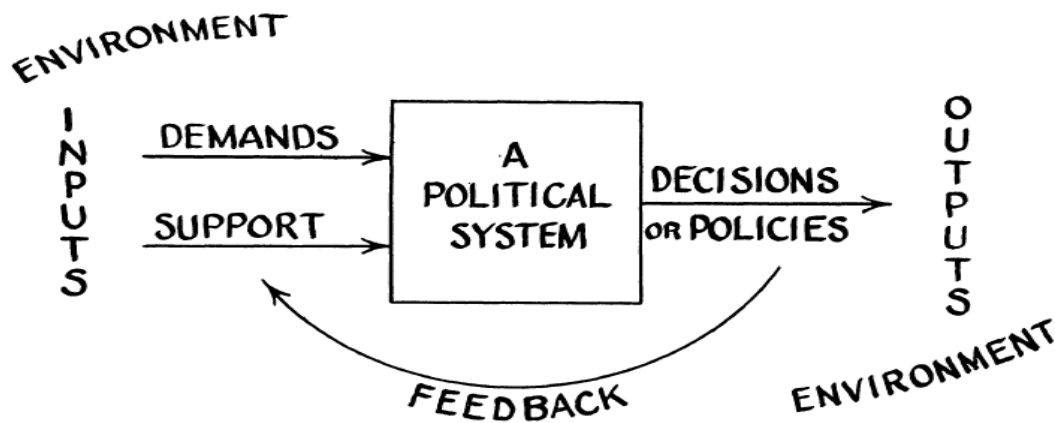

Figure 2: Political System Model:

- Political system produces **demands** and **supports**.
- There is always a competition between these demands politicians always want to safeguard their interests so these demands leading to decisions or **outputs**

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- Demands go to political system where policy makers including bureaucracy they make some decisions.

- People see the decisions and outputs if they like it then they adopt if not they react.

- If society and environment doesn't accept these outcomes then they produce Feedback

- **Feedback** mean policy or decisions go back to beginning towards step one to modify and tilt the decision or policy. So this is a continuous process

3.2   Conceptual Framework

A creation of a researcher where he or she give cognitive or tentative conclusions on the basis of literature review and evidences are still not complete in literature, where evidence is still incomplete. It is a mixture of interrelated ideas and concepts who provides an inclusive knowledge and understanding of a spectacle (Patrick, 2020). After thorough literature review, the researcher were able to develop this conceptual framework given in figure 1.It shows that four independent variables play significant role in having an impact on relationships between academic research, policy and practices this research will investigate the role and impact of each these variables through interviews with relevant stakeholders.
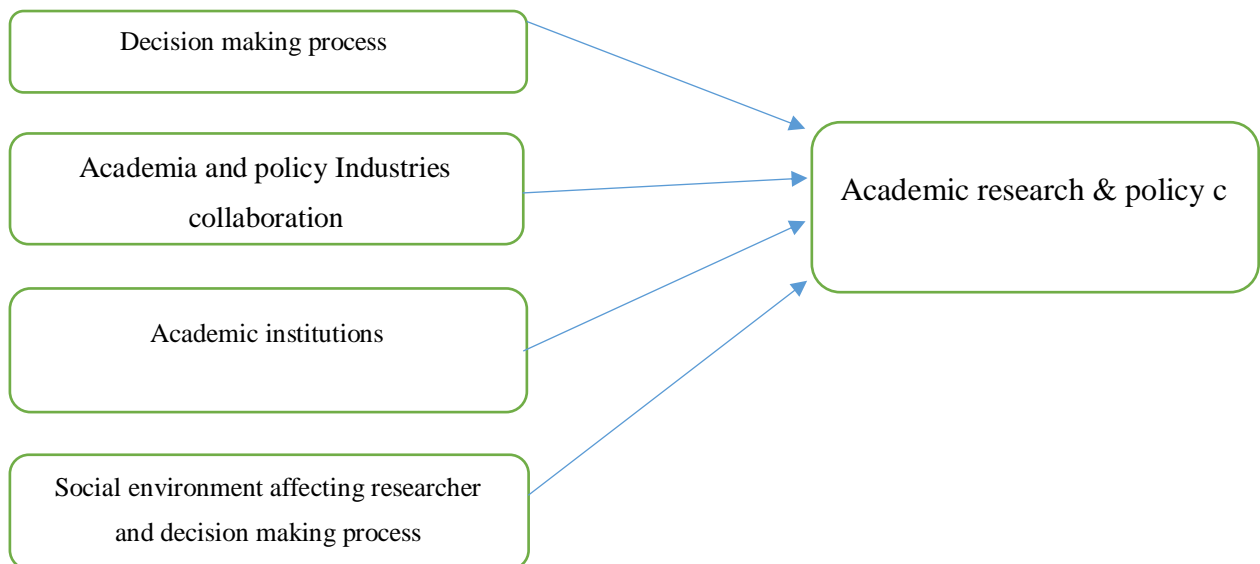

Figure 3: Conceptual Framework

3.2.1 Decision Making Process

This process is completely a governmental or political process and it has its own rules and procedures. There are different models are used for decision-making. This system is not scientific because political affiliations, emotions, and feelings are involved. So it is very challenging for a researcher to get data 100% because different powerful groups always influence the political system. Policymakers frequently answer for the previous day for the decisions they are making now (Tsenge, 2020). The researcher has explained and described the system model which is very common and important in democratic countries for decision-making.

System Model: Basically this model is a combination of components that are linked with each other by some form of behavior or movement. David Easton is the author of this model, and he has issued his theory on political models in three dimensions. He raised a question in the middle of his study that how the political system accomplishes and continues working in an environment that is full of instabilities and change. To answer this question he considers that it is compulsory to observe the way and methodologies where the political system cooperates with the environment within or outside of the society. This model consists of a few steps which are:

- Political system produces **demands** and **supports**.
- There is always a competition between these demands and its supports. Politicians always want to safeguard their interests so these demands leading to decisions or **outputs**
- Demands go to political system where policy makers including bureaucracy they make some decisions.
- People see the decisions and outputs if they like it then they adopt if not they react.
- If society and environment doesn't accept these outcomes then they produce Feedback
- **Feedback** mean policy or decisions go back to beginning towards step one to modify and tilt the decision or policy. So this is a continuous process until decisions are according to the needs and requirements of the society and it can fulfill the demands.

3.2.2 Academia and Policy Industries Collaboration

Universities and industries collaboration is very important; a lot of benefits are associated with that industry-university networking. The major reason is universities are helpful for public policy industries to bring new knowledge, highlight the issues in society, to bring new techniques to resolve those issues by producing new research, preparing new reports, and generating processes and models, which is very helpful for both industry and university.

3.2.3 Social Structure and Institutions

In all developed countries where democracy is very strong, they make a proper system and have a proper team for researchers and academicians. Those researchers and academicians help the government to dig out the issues and problems in society and provide a proper, logical and reasonable solution. This is the beauty of civilized and rich democracies. In other democracies, things are different politicians are always running behind seats of power rather than identifying the issues and problems of the public and allowing people and institutes for a more regular and rational interchange of ideas and insights. They also do not have a strong independent institutional policy for their institutions.

3.2.4 Structural environment affecting researcher and decision making process

A theory proposed by Nathan Kaplan (1979) presented that research was not utilized properly in policymaking because researchers and policymakers do not belong from the same background they have different working environment setups and different cultures. Culture is a set of norms, rewards, values, attitudes and methodologies, procedures and people's behavior, thinking, actions, and the way they perceive things. Researchers and policymakers are from dissimilar qualified backgrounds so they work and manage things differently. (Bogenschneider, 2010). People do not have similar languages, their communication styles are different, and respond to some communications and talk is different. The basic idea of these theories is that an understanding of a community its cultures, its language, norms, values, and institutions, and also improves communications between researchers and policymakers and improves and promote the research utilization of policies.

CHAPTER – 4:   RESEARCH METHODOLOGY

Research is a process through which data is investigated, and analyzed, and provides information on the basis of facts and findings. This process involves different methods and procedures to get accurate and correct information. There are two types of research basic and applied. Two approaches can be used in research qualitative and quantitative research methods.

Quantitative approach

In this research, it's up to the researcher he/she decides what to study or what to investigate. In quantitative research:
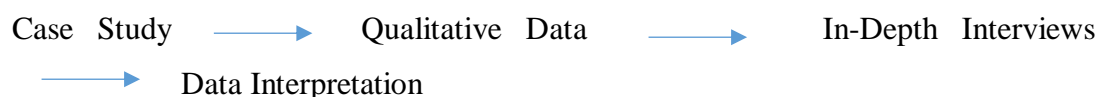
- To ask narrow and specific questions
- Data collection from the participants
- Numbers and statistics involved in the data
- Investigating the data unbiased and in an objective manner

Qualitative approach

This is an approach where the researcher relies on the views, knowledge, and experience of respondents.

- Ask broad general questions
- Collecting data consisting of text or images
- Themes descriptions and analysis
- Inquiries are always in subjective and biased manners

This study adopted qualitative method while selecting a case study.

Case Study ⟶ Qualitative Data ⟶ In-Depth Interviews ⟶ Data Interpretation

4.1   Qualitative Research:

There were four research questions including one major question. In order to answer those research questions the researcher has conducted interviews. For the result, the researcher has used thematic analysis to compare and analyzed the data which was provided by the professionals, Academia, and other relevant participants through interviews. There was a total of four questions including the main question being addressed under the name disconnect/gaps between policy practices and academic research.

In this study, the researcher has used the thematic analysis which was purposed by the very famous author Braun & Clarke (2006). Bottom down approach (basically in this method

we can use the data inclines to be non-structured and investigative. It lets the data bring an output or result) of research is being used for this study because the very precise research questions are formulated and the investigation is concentrated on to find out the answers of these question. The purpose of this study is to get a deeper and more detailed understanding of the gaps between policy practices and academic research.

4.1.1 Sampling Techniques

In this study the researcher has used purposive sampling techniques. According to the guideline and procedure sample was selected on researcher's researchers own judgment. Purposive sampling technique were used which is based on own judgment of a research by selecting the relevant stakeholders or participants in order to get the relevant accurate and reliable date or information the purpose is to meet the objectives and accomplish the task in a more suitable manners. This form and technique is mostly used for small samples (Neumann, 2005).

4.1.2 Sampling size

Sample we have generated from the people where researcher has selected six in depth interviews and one focus group discussion was conducted from the actors of HEC, ORIC, Policy making institutes & academia.

4.1.3 Thematic Analysis:

"A method for identifying, analyzing and reporting patterns within qualitative data." (Braun Clarke, 2006)**.**

4.1.4 Justification of the case study approach:

Case study consist on in-depth study of an individual, group of people, event, and nearly every aspect of the subject's life and history is analyzed to seek patterns and causes of behavior (Cherry, 2021). The current study deals with the specific discipline of governance and public policy.

4.1.5 Research Paradigm

This is believed that through research data can be composed and investigated regarding in a specific area where researcher can plan and direct the research in a more suitable and relevant way (vinze). It is also involve the researcher point of view to draw and conduct a study in an environmental settings and system which can gives guidelines and procedures by following and relating the cultural aspects and reality. The ideas methodologies, thinking, opinions, and perceptions could be changes or different than reality. So whenever a researcher can conduct a study he she always consider the different and unique understanding, interpretation and assessment of knowledge that

how it could be perceived and acceptable in reality. The researcher would be able to know understand and articulate the beliefs about the nature of reality what we know and how we are going to attain this knowledge. These are the elements of research paradigm. A paradigm is basic beliefs and theoretical framework with assumptions about ontology, epistemology, methodology, and methods. Which are described below.

Ontology: **"refers** to the nature of our beliefs about reality**"** (Richard, 2003)**.** It's all about assumption about reality, with some basic questions like how it exists and what could be known about it? Ontology helps researcher to enquire what kind of reality exist.

Epistemology*:*

This is a branch of philosophy where the researcher studies the nature of knowledge and the process by which knowledge is acquired and validated (Lincoln & Guba, 1985). It is he epistemological questions which that leads a researcher to talk and debate about the possibility and desirability of objectivity, subjectivity, causality, validity and generalizability (Patton, 2002)

4.1.6   Research Design

This is the methodical, logical trick is to organizing and directing the study in a proper manner as it is defined by the study design (Creswell& J. David, 2017). Qualitative research design is a procedure driven (Hollweck, 2016). It is admitted by the scholar to have a liberty to select a proper, relevant right and appropriate methodologies and procedures to organize a research according to the requirement of the study. Since this study investigate the disconnect or gaps between academic research and policy practices in case of public policy discipline. Therefore, a case study was design, chosen, accepted include the thematic analysis because this is a pure qualitative research. According to multiple stakeholders point of views are integrated in the study and wider aspects are explored to answer the research question.

4.1.7   Data analysis:

Data Analysis is basically a systematic and procedural approach and as logical technique to define and explained, summaries and evaluating the data. We have used in depth face to face interviews and focus group discussions with all the relevant stakeholders in the study. The best way of data collection are interviews to reduce no reaction and moving the data excellence (Lavrakas, 2008). We have scheduled the interviews which are enclosed the open-ended questions for data gathering and the

information. This is primary data we have collected from 7 relevant stakeholders including members from HEC, Universities, and policy-making industries and one focused group discussion was conducted.

4.2 Data Collection

The researcher has done qualitative research by using a thematic analysis approach. Thematic analysis was used in this research for collecting the data to address research questions. We have conducted interviews and transcribed them to get the data according to the suggestion by (Braun & Clark, 2006). In this research by using a qualitative approach, data is collected from minimum of two members from each stakeholder including (academicians, researchers, professionals from HEC, ORIC, and industries) and one Focus Group Discussion was conducted from academia's, researchers, professionals from ORIC, and HEC. Thematic analysis technique was followed for the interviews as well as FGD.

4.2.1 Qualitative data

There were one major research question and four deriving research questions in order to address these questions we have conducted interview to get the answers. The analysis was entirely based on the data and answers that we get from the members of relevant institutes and for this we have also created four modules in order to answers the 4 research questions and the research topic is the major question which is the disconnect/gaps between policy practices and academic research RQ1, What are the major gaps between academic research and policy practices? This was major research question and the deriving questions were RQ1 what is the role of stakeholders, in bridging the gap between academic research and policy practices? RQ2 Why Universities-industry liaison is important in the case of governance and public policy? RQ3 what are the policy-making process and related challenges? RQ4 what are the structural barriers in policy practices and university-industry linkage? The researcher has used thematic analysis which was proposed by a very famous author Braun &Clarke (2006). Bottom down approach is a method where researcher starts identifying issues gross root level or bottom level in the hierarchy. This approach is used by the researcher because of precise research questions and which are concentrated on addressing the question. The purpose is to emphasis of this research is to get a more detailed, clear, accurate, understanding of the gaps between policy practices and academic research in Rawalpindi Islamabad by using the thematic analysis methodology.

4.2.2 Thematic analysis

In this research researcher has used thematic analysis basically this is the methodology in research that can be used in discovering and developing some designs and themes from the information we got from the respondents and participants and the data is based on a qualitative approach by using different techniques and the comparison of the data in accordance to the literature review is known as thematic analysis. Data could be applied and used through different methodologies and also helpful to address the wide and big data. These techniques of analysis are elastic, flexibility and high in nature which is very helpful and supportive to identifying, analyzing, organizing, describing, and reporting different themes produced by the data gathered. it has a lot of other benefits for example as we know it is flexible and could be very useful for a big set of information because it doesn't involved with strict policies methodologies or procedures to do data analysis (Braun & Clarke, 2006). Furthermore, King (2004) argued whenever a new research I using qualitative approach to get the data then it is very easy and convenient for the researcher to handle and structured the data suitably efficiently and effectively in a certain time framework. So a new research cane prepares and produce an accurate and clear report of the data.

Thematic analysis is a procedure of data analysis which includes identification, description, explanation, substantiation and linkages of themes. The aim is to convey all the information which is meaningful, and deduced from identification of the main and central idea or cluster of ideas who can give its comprehensive and detailed meanings. Thematic analysis' flexibility and ease of use is a major advantages. (Nowell et al, 2017)

The topic of this study is disconnect gaps between policy practices and academic research. The aim is to identify gaps, issues, and hurdles and also we focused on to find a way out to reduce these gaps. For this we have prepared interview guide for different stakeholders which are universities, HEC, and policy industries, in policy industries we choose to conduct Interviews and get data from IPS (institute of policy studies), and SDPI was established in 90, s, both institutes are locate in Islamabad, Pakistan Then b using thematic analysis we came to the point where we can make themes and subthemes. There are seven themes and each themes have different sub themes. These all themes are relevant to each other and there major theme. Figure below is describing and elaborating all themes and subthemes which are given below:

This study opts for qualitative research to study things in their natural settings, understanding it and interpreting the common perception from the relevant stakeholders. This study covers six interviews and one focus group discussion by doing thematic analysis on the topic which the gaps between academic research and policy practices. Additionally, in order to get deeper and understanding we have also involved and had some informal discussions with the stakeholders who were involved in the initiatives have been taken from the different institutes. In this research, we have invited about 10 people for the interviews but there were only seven people who were will for the interviews and providing us data. There were couple of reason some people were not will to disclose the information, some of them were not having enough time for the interviews. Furthermore, we have designed three different interview guides for three stakeholders HEC, Academia, and Industries. Then researcher has transcribed the interviews after that researcher were able to generate codes to concise the data in small pieces and irrelevant data was subtracted and excluded. Stakeholders provided data which includes, Gaps and issues, how to address those issues and gaps, contributions of different stakeholders to fill up the gaps, and initiatives taken by stakeholders to reduce the gaps between academic research and policy practices. Thematic analysis was used to analyze the data and it was focusing on digging out the real issues, formulating the strategies to reduce those issues, and to evaluate the policies and initiatives taken by the stakeholders against different issues. The researcher is going to do a thematic analysis in this research which consists of five steps. These are:-

- Data Familiarization
- Codes generation
- Searching themes
- Themes reviewing
- Defining themes
- Writing

Step 1: Data Familiarization:

Qualitative data come in various forms including recorded observations, focus groups, texts, documents, multimedia, public domain sources, policy manuals, and photographs (Thorne, 2000). According to Braun and Clarke (2006) the researchers should read through the entire data set at least once before starting the coding, as ideas and identification of possible patterns may be shaped as researchers become familiar with

all aspects of their data. This is the very first step and in this step we are involved with the data we have collected through interviews taken with different stakeholders. In this step, the researcher listens to interviews, recording and writing them on a piece of paper. The researcher has noted and written down answers to all the questions. This is very much important to read and listen again and again and get a better understanding and familiarization with data. Usually in this step, a researcher takes rough notes and which is informal but very helpful once the researcher is done with reading and reading and gets a better understating then we move forward to step two which is code generation.

Data Information:

There are two types of data primary data and secondary data in this study primary data is used. The researcher took about forty five minutes to take and conduct each and every interviews. In this study the researcher has conducted seven different interviews and one focused group discussion from the relevant stakeholders in all together 6 hours of interviews we had with all professionals.

Respondent details:

All the people who were appeared in interview they are around 40 years old. The researcher has conducted interviews from two officials of HEC, two professionals from NUML University Islamabad, Two officials from ORIC, Two interview from IPS (Institute of Policy Studies), one official from SDPI (Sustainable Development Policy Institute), and one focused group's discussion from IPS.

Step 2: Codes Generations:

After data familiarization code generation is the next step. The second phase begins once researchers have read and familiarized about the data, and researcher has some idea about what is data about and what is helpful and interesting in the data s in the data and what is interesting about them (Braun & Clark, 2006). In code generation step, the researcher always start to plan and starts to set and establish data in an expressive, logical, and structured manner. In coding, the researcher has used big data in small sentences which have some meanings. These sentences or chunks of data are presenting the larger data and can be used to analyze and assess the data. Code generating is very helpful to get and extract the data which is meaningful and the relevant data will be automatically discarded and excluded. In Qualitative research coding is a technique of

reflection and a way of thinking and interacting with the data Coding allows the researcher to simplify and focus on specific characteristics of the data (Savage, 2000).

Coding Process: During coding process, the researchers first identify the relevant and important sections of the text and attach labels to highlighted points as they relate to a theme or issue in the data (king, 2004). First of all the researcher arrange and organize the data that researcher got from the interviews according to the modules in the guideline of interviews scheduled. The researcher has read again and again responses, to find out the relevant data to the research questions and the modules. Then the researcher transcribed that data and generated codes. Therefore, after code generation, the researcher has compared and made changes and modifications in codes to make it more related to the study and research questions. The researcher has done all the processes manually then for this researcher has used word format and typed all the data into word format. The below modules are presenting initial code generated by the researcher.

Module 1: Challenges and gaps associated with productive linkages

Codes:

The very first theme the researcher identifies is challenges and gaps which are associated with a productive linkage between institutes linkage. Issues are discussed below:

- Lack of skills
- No creativity no research
- Low Funds & Resources
- Strict FBR & NAB Check
- Time-consuming
- Cost consuming
- Difficult to bring all the stakeholders to one page
- Lack of Coordination
- Only theoretical Knowledge in Universities

- Lack of skills of Universities students
- Lack of awareness
- Lack of seriousness from both the university and industry side
- Fear of public speaking
- Lack of institutional strength
- Low involvement of common people
- No accountability
- No transparency in decision making
- No proper guidelines from supervisors to students

Social & environmental barriers:

Cultural, Gender, Racism, Language, Feudalism, Climate, land sliding, snow falling, if harsh weather then flights are also closed.

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Module 2: Collaboration areas between academia & industry

In this area the researcher will explore collaboration areas between academia and industry.

ORIC: ORIC is stand for office of research innovation and commercialization is an institute by HEC in educational institutes to promote academic research. ORIC purpose engage university and industries for collaboration and to make an environment where both industries universities can work together.

Internship Programs: Different programs and internship are providing to universities students by industry so students can familiar to real work.

Funding Programs for academic research: Different funding programs are initiated by World Bank and implemented by HEC for academic research.

HEC Role in IUL linkage: ORIC: ORIC is initiated by HEC which is very helpful for universities and industries linkage.

Grant & funding programs: Different grant and funding programs are initiated by World Bank but organized and implemented by HEC. Like RAPID, RGMS, Thematic Research Programs, R&D Program.

Scholarships: Different scholarships programs within country and outside country are given by HEC to facilitate researchers and students.

Module 3: Initiatives are taken to bridge the gaps:

Different initiatives are taken by institutes to overcome and reduce these gaps.

Seminars, meetings, conferences:

Different seminars, meeting and conferences are conducted in universities where they can invite industry people who can share their experiences, work and also they can engage students. Student and academia can help them to identify the issues through academic research and this is how they can resolve the issues in a society.

Scholarships & Funding Programs:

Scholarships and funding programs are also offered and organized by different institutes for the students which are very helpful to promote the academic research.

To provide platform & infrastructure:

University is the place who can provide infrastructure and plate form to the researcher where they can work easily and also can get guidelines from their supervisors.

Skill Building:

Skill building programs are needed for the students in universities which can help them to produce quality graduates. And also it's very useful for the university because this is how they will be able to hire skilled and professional workers.

IPS contribution towards academic research:

Different programs are initiated by IPS to engage university students to do research.

NRF Program:

NRF non residence funding program is initiated by IPS where all the professors cab do research they are not fully hired by IPS but IPS can facilitate them and in return IPS can get research done in short time.

Internships for students:

IPS has announced internships programs for university students who can do internship and participate in different researches in specific domain.

Policy perspective general.

Policy practices is a general or plate form provided by IPS where all the students and facilities from university can write and publish their opinion.

Signed MOU's for research papers:

Different MOUs are signed between universities and IPS for research papers which is beneficial for both industry and universities.

SDPI Initiatives & contribution towards IUL:

The Sustainable Development Policy Institute organizing and conducting conferences and seminars throughout the year

The SDC is a leading occasion which is not only provide a platform for its own researchers but also they invite people from outside the institutes like researchers, practitioners, policy formulators, provides a forum for SDPI's own research but also invites other researchers, practitioners, academia and other all national and international stakeholders. This event is very beneficial for the country because it let people to get to gather and have discussions at various issues in the society. At the same time many people are coming from different background, cultures, and professions so it will be a very good combination to promote academic research and helping government to formulate more suitable policies for the public in order to resolve the issues or for the development purpose.

General and publications:

SDPI provided plate form to publish research paper to all scholars, researchers and faculty.

Trainings and Projects:

Different research trainings and projects are provided by SDPI in order to enhance and promote research which can be helpful for problem identification and policy formulation.

Step 3: Themes Searching:

It is basically a pattern which is a design that reflects important and relevant information and also motivates and gives direction to the research question. As Braun & Clarke (2006) explain, for themes generation we do not have specific, tough, or firm rules. It is defined as it is very vibrant by its meaning. In this step, the researcher is sorting and collating all the possible significant and related coded data extracts into themes (Braun & Clark, 2006). The researcher does not have big data and have just one focus group there may be large connection in the coding and in the identification of initial subjects. These are the potential themes all the codes that are related with each other are offered by the combination of codes. The initial themes that are explained in the table below:-

Module 1: Challenges and gaps associated with productive linkages
The very first theme the researcher has identifies is the challenges and gaps which are associated with a productive linkage between institutes linkage. Issues are discussed below:
Lack of skills
No creativity no research
Low Funds & Resources
Strict FBR & NAB Check
Time-consuming
Cost consuming
Difficult to bring all the stakeholders to one page
Lack of Coordination
Only theoretical Knowledge in Universities
Lack of skills of Universities students
Lack of awareness
Lack of seriousness from both the university and industry side
Fear of public speaking
Lack of institutional strength

Low involvement of common people

No accountability

No transparency in decision making

No proper guidelines from supervisors to students

Social & environmental barriers:

Cultural

Gender

Racism

Language

Feudalism

Climate, land sliding, snow falling, if harsh weather then flights are also closed.

Module 2: Collaboration areas between academia & industry

In this area, the researcher will explore collaboration areas between academia and industry.

ORIC:

ORIC stands for office of research innovation and commercialization is an institute by HEC for this they have developed and established their offices at universities in order to promote academic research and to create a linkage between universities and industries. ORIC purpose includes engaging universities and industries for collaboration and to make an environment where both industries and universities can work together.

Internship Programs:

Different programs and internships are provided to university students by industry so students can familiar with real work.

Funding Programs for academic research:

Different funding programs are initiated by World Bank and implemented by HEC for academic research.

HEC Role in IUL linkage:

ORIC: ORIC is initiated by HEC which is very helpful for universities and industries linkage.

Grant & funding programs:

Different grant and funding programs are initiated by World Bank but organized and implemented by HEC. Like RAPID, RGMS, Thematic Research Programs, R&D Program.

Scholarships:

Different scholarships programs within country and outside country are given by HEC to facilitate researchers and students.

Module 3: Initiatives are taken to bridge the gaps

Different initiatives are taken by institutes to overcome and reduce these gaps.

Seminars, meetings, conferences: Different seminars, meeting and conferences are conducted in universities where they can invite industry people who can share their experiences, work and also they can engage students. Student and academia can help them to identify the issues through academic research and this is how they can resolve the issues in a society.

Scholarships & Funding Programs: Scholarships and funding programs are also offered and organized by different institutes for the students which are very helpful to promote the academic research.

To provide platform & infrastructure:

University is the place who can provide infrastructure and plate form to the researcher where they can work easily and also can get guidelines from their supervisors.

Skill Building: Skill building programs are needed for the students in universities which can help them to produce quality graduates. And also it's very useful for the university because this is how they will be able to hire skilled and professional workers.

IPS contribution towards academic research: Different programs are initiated by IPS to engage university students to do research.

NRF Program: NRF non residence funding program is initiated by IPS where all the professors cab do research they are not fully hired by IPS but IPS can facilitate them and in return IPS can get research done in short time.

Internships for students:

IPS has announced internships programs for university students who can do internship and participate in different researches in specific domain.

Policy perspective general: Policy practices is a general or plate form provided by IPS where all the students and facilities from university can write and publish their opinion.

Signed MOUs for research papers: Different MOUs are signed between universities and IPS for research papers which is beneficial for both industry and universities.

SDPI Initiatives & Contribution towards IUL: SDPI sustainable development policy institute is established under the reference of the Pakistan National Conservation Strategy. Their vision is to focus on the sustainable expansion of policies research, capacity development, and advocacy in Pakistan.

Conferences: The Sustainable Development Policy Institute organizes and conducts conferences and seminars throughout the year

The SDC is a leading occasion which does not only provide a platform for its own researchers but also invite people from outside the institutes like researchers, practitioners, and policy formulators, provides a forum for SDPI's own research but also invites other researchers, practitioners, academia and other all national and international stakeholders. This event is very beneficial for the country because it let people get to gather and have discussions on various issues in society. At the same time, many people are coming from different backgrounds, cultures, and professions so it will be a very good combination to promote academic research and help the government formulate more suitable policies for the public in order to resolve the issues or for development purposes.

General and publications: SDPI provided plate form to publish research papers to all scholars, researchers, and faculty.

Training and Projects: Different research training and projects are provided by SDPI in order to enhance and promote research which can be helpful for problem identification and policy formulation.

Step 4: Themes Reviewing:

The fourth phase begins when a set of themes has been developed, and now those themes needs alteration and refinement (Braun & Clark, 2006). In the coded data we have highlighted the designs now step four starts where the researcher will turn identified designs into themes and subthemes and review refining them. Here researcher will examine each and every code in order to find out the similarities and matches among them and to collect them into single and subthemes. If the researcher has found

repeated information or matching codes then do not need to use a code, it may be deleted (king, 2004). This is the simple way to generate and plan all the codes into themes and subthemes. Some themes may collapse into each other while other themes may need to be broken down into separate themes (Braun & Clark, 2006). Once the researcher is done with this themes and sub-themes will be arranged in accordance with the detailed research questions. Data will be summarized and minimize into a more convenient and small set of important themes (Attride-Stirling, 2001). The framework of the whole data will be carried into attention to getting checked the significance of the subjects. Testing the referential adequacy can be accomplished by returning to the raw data and comparing it to the developed themes to make sure that all conclusions are firmly grounded in the data (Lincoln & Guba, 1985). More time Investing to understand and develop the themes will help researcher to maximize and enhance the probability of developing credible finding (Lincoln & Guba, 1985). At the end of step four, there will be a clear sign of themes subthemes, and the relationship among them.

Major RQ1 what are the major gaps between academic research and policy practices? The question addresses the gaps between academic research and policy practices and according to the interview responses, the researcher was able to develop three themes. Challenges and gaps associated with productive linkage, Research Knowledge, and Bureaucratic setup. The researcher has mentioned sub-themes in the table.

Table 1: Research Question 1 Themes

Theme: Challenges and gaps associated with productive linkages	Theme: Research knowledge	Theme: Bureaucratic setup
Sub-theme 1: lack of resources	Sub theme1: No properly trained staff	Sub-theme 1: Power Conflicts
Sub-theme 2: Lack of awareness	Sub-theme 2: No research culture in universities	Sub-theme 2: Not proper policy for university-industry linkage
Sub theme3: Lack of coordination	Sub-theme 3: The timeline for research is not followed by students	
	Theme 4: Old education system	

RQ2: What is the role of stakeholders, in bridging the gap between academic research and policy practices?

The second research question explores the role of stakeholders in reducing the gap between academic research and policy practices. The main themes are good governance, awareness, and the importance of IUL. The sub-themes under the main themes are mentioned in the table.

Table 2: Research Question 2 Themes

Theme 1:Good governance	Theme 2: Awareness and Importance of IUL
Sub-theme 1: Strong policies for all stakeholders to bridge the gap	Sub Theme 1: Ease of access to information
Sub-theme 2: value of research and Stakeholders' interest	Sub-theme 2: Spread information
Sub-theme 3: Strong checks and balances in institutions	Sub-theme 3: to helps with problem identification and its solution through academic research
Sub Theme 4: Transparent decision making	Sub-theme 4:develop research culture in universities

RQ3: Why Universities-industry liaison is important in the case of governance and public policy?

This research question investigates the factors and importance of university-industry liaison. The main themes identify are the Importance of collaboration, Collaboration areas. The sub-themes under the main themes are mentioned in the table.

Table 3: Research Question 3: Themes

Theme 1: Importance of collaboration:	Theme 2: Collaboration areas.
Sub-theme 1: Problem-solving	Subtheme1: Internship programs
Subtheme 2: synergy system	Subtheme 2: Funding
Sub-theme 3: better policymaking	Subtheme 3: To improve institutional growth
Sub-theme 4: to promote education and awareness	

RQ4: What are the structural barriers in policy practices and university-industry linkage?

This research question identifies the structural barriers in policy practices and university linkage. The main themes identified are Education policy and environmental issues. The subthemes are also mentioned in the table below.

Table 4: Research Question 4: Themes

Theme 1: Educational barriers	Theme 2: Environmental issues
Sub-theme 1: Education policy Sub-theme 2: Structural Changes in education Sub-theme 3: No creativity, No research Sub-theme 4: non-skilled and trained academia	• Cultural • Gender • Racism • Language • Feudalism • Climate, land sliding, snow falling.

Step 5: Define themes:

As we have reviewed all the themes and sub themes last step which is step 4, in this step definition and themes identification is involved. This is the last modification of the themes the objective finds "the essence of what each theme is about." (Braun & Clark, 2006). King (king) Advised there is always possibility of modifications and refinement of themes, and one of the most difficult decisions to make is where to stop the process of development. The themes cannot be finalized if any important and relevant information is in the text but missing and not included in the themes (king, 2004). It is important that, by the end of this step, researchers can clearly define what the themes are and what they are not (Braun & Clarke, 2006). If the researcher has clearly and briefly describe the scope and content of each theme, then themes will be ready to move on next step otherwise it will go back for refinement again (Braun & Clark, 2006).

The section demonstrates the themes, subthemes and thematic map for each research question.

Gaps between policy practices and academic research

There are several gaps found that influences the policy practices and academic research and based on interviews responses following themes have been identified. Challenges and gaps associated with productive linkage, research knowledge, and bureaucratic setup. The subthemes are shortage of resources, no awareness, less coordination, no proper trained staff, no research culture in universities, timeline for research is not followed by student, old education system, power conflicts, not proper policy for university industry linkage.
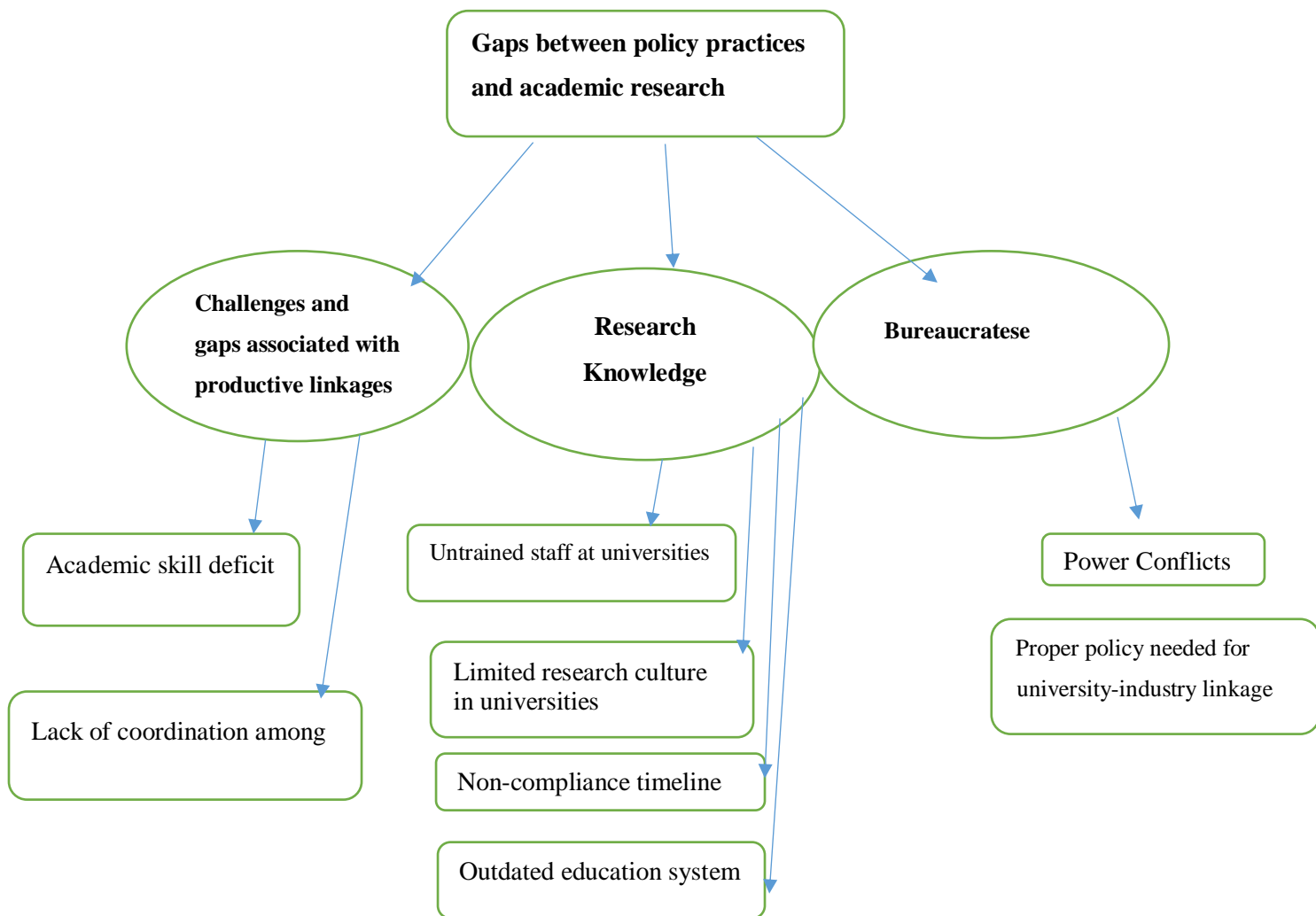

Figure 4: Thematic Map

The role of stakeholders in bridging academic research and policy practices

The role of stakeholders in bridging academic research and policy practices:

According to responses of the interviews we are able to generate themes and its sub themes now. The diagram below show the role of stakeholder to promote academic research and policy practices.
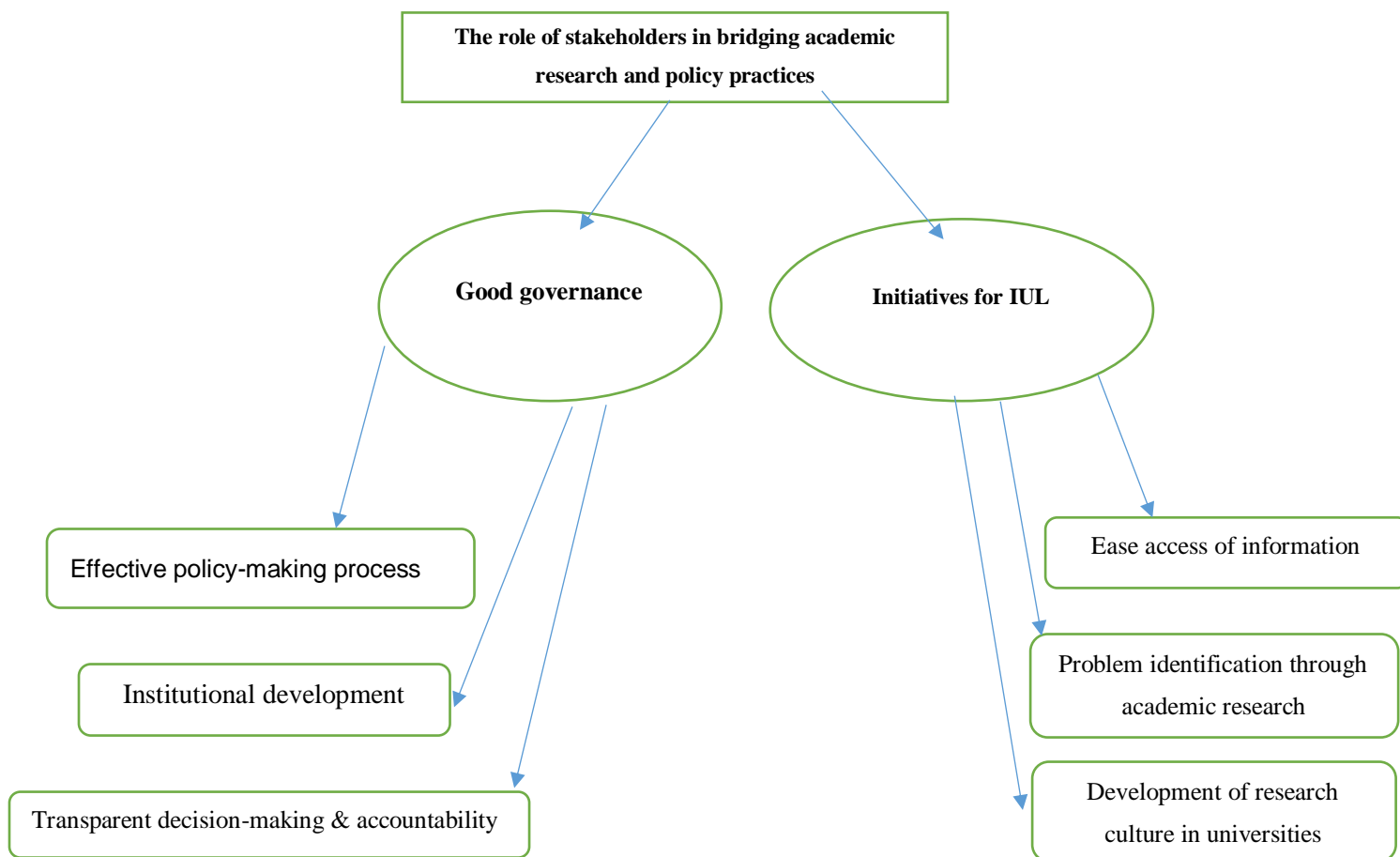

Figure 5: Thematic Map

Importance of Universities-industry liaison:

According to the responsive of interview major themes and sub themes are highlighted. Themes presents the importance of university industry liaison are displayed in below diagram. The main themes are Importance of institutional collaboration, collaboration areas, and sub themes are problem solving, synergy system, better policy making, to promote education and awareness, internship programs, funding, to improve institutional growth.
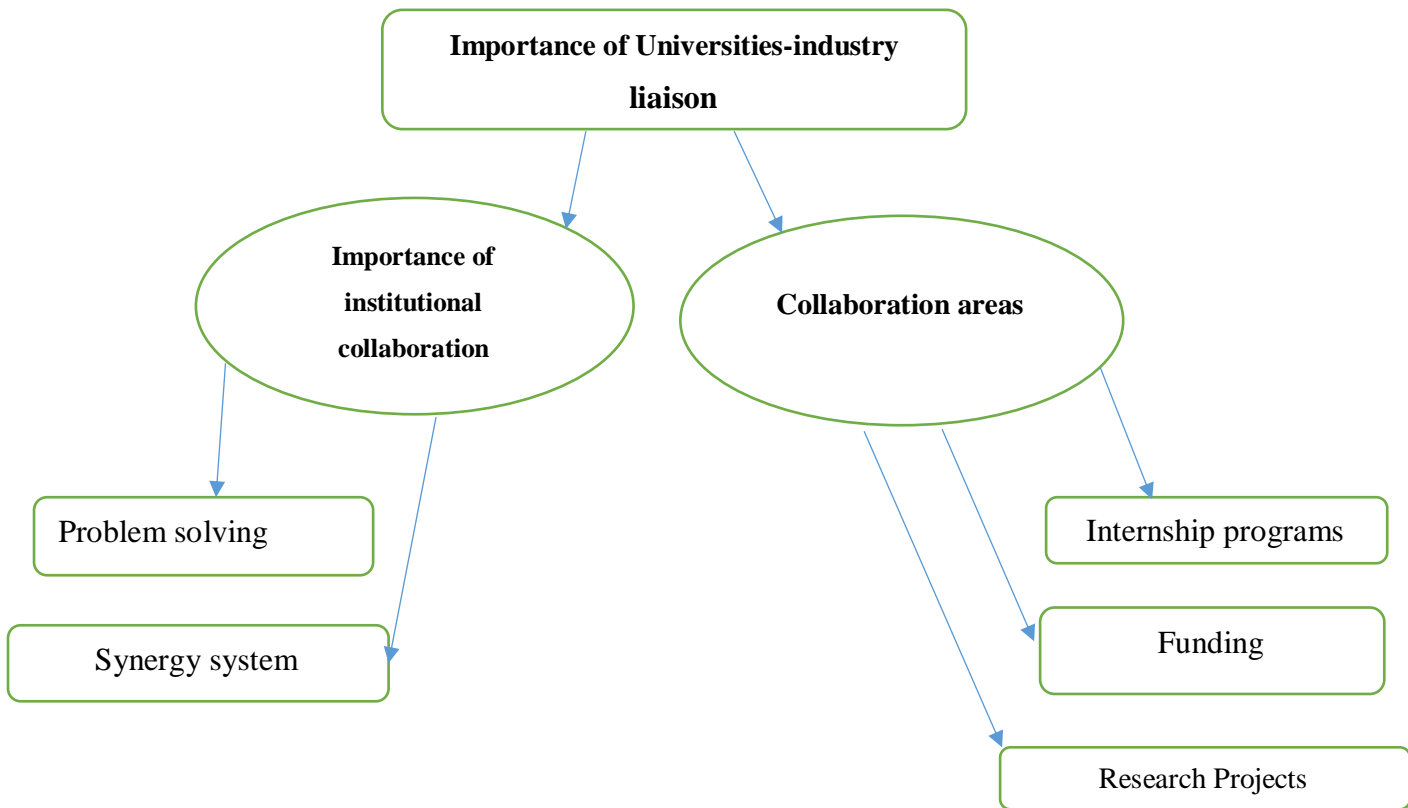
Figure 6: Thematic Map

The structural barriers in policy practices and university linkage: The structural barrier in policy practices and university linkage or academic research is highlighted. The barriers are presented as the main themes educational barriers, environmental issues, and the sub theme for both themes are education policy, structural changes in education, no creativity no research, no skilled and trained academia, cultural, gender, racism, language and climate like snow falling, land sliding etc.
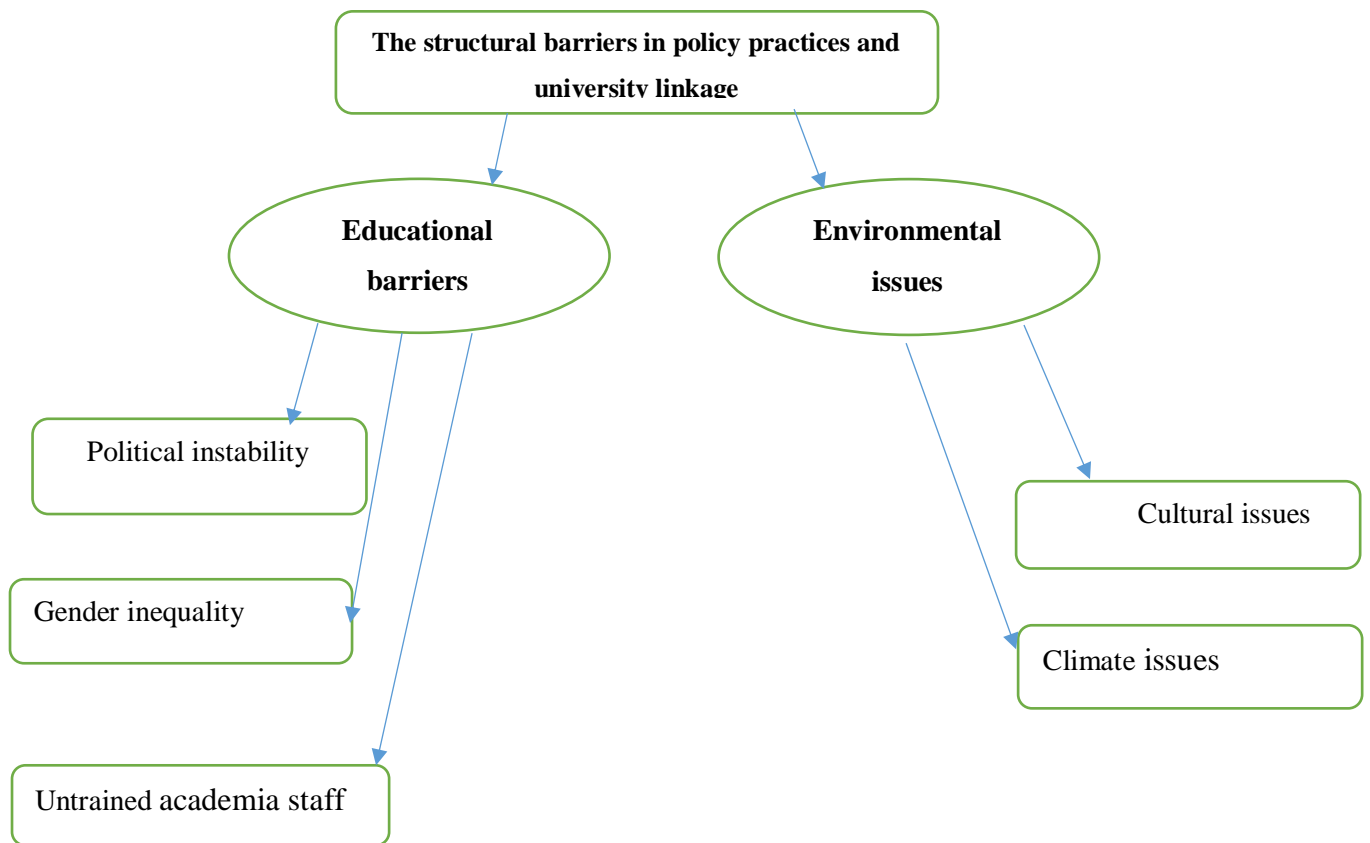
Figure 7: Thematic Map

Step 6: Writing (Discussion):

This is the end point and last step where the researcher have started writing about all the gathered data and its analysis. The last step starts when the researcher has fully established and developed the themes and now data is ready to begin for final analysis and write-up (Braun & Clark, 2006). The writing or discussion step of a thematic analysis is always a concise, coherent, logical, non-repetitive, submission of the analyses to participants for their feedback (Cote & Turgeon, 2005). Usually, the last or end-point of research is some kind of report, a journal, article or dissertation.

Sub theme 1: Academic skills deficit:

According to responses there is no structural designed curriculum in universities, and following the traditional teaching method this is why students are very good at theory but there is no base for the research properly so they do not have enough skills to participate and work in industries effectively. In Pakistan the very first National

Commission on Education was formed in 1959 in order to review the education system. The purpose was to restructure the system to promote education but it was not different and no new techniques and policies were made by the government (Kausar & Akhtar, 2012).

Teaching staff of the universities of developed countries focusing on the research, considering it as an important aspect of their profession. They remain engaged in research activities to enhance their profession as well as to develop research skills in students to create more knowledge (Iqbal, Jalal & Mahmood, 2018)

Sub theme 2: Lack of coordination among institutes:

One of the gaps among institutes are lack of coordination. If there is no coordination they will never understand what exactly then can do together and how can be reduced issues through policies.

Theme: Research Knowledge

No Quality research is now being done in universities. Whatever research is being conducted is of either of poor quality or is not of practical use. Before undertaking any research, the teacher programs are not studied properly.

Sub theme 1: Untrained staff universities

In our universities there is another challenge of untrained staff its poor planning and strategies. It's just because resources are not properly utilized, lack and poor utilization of resources of resources in teacher trainings and workshops, teachers are getting enough reward this is why there is a big dissatisfaction and de-motivation in faculty, no proper distribution of trained, expert, and professional.

Subtheme 2: Limited research culture in universities

There is no proper research culture developed in universities if they have a choice in research and course work they prefer course work and reluctant to do research.

Sub theme 3: Non Compliance Timeline

Students do not followed the time line this is why a lot of delays in the research in result at last time when they try to complete research then they cannot produce quality research.

Sub theme 4: Outdated education system

In Pakistan, the education system adopted from colonial authorities has been described as one of the most underdeveloped in the world. This is why this education system has lot of problems which needs to be addressed. For example some problems are lack of

budget, lack of teachers training, examination system, alarming dropouts, education without direction, and poor supervision standard.

Theme: Bureaucratic Setup

Politicians and bureaucrats, are always devoted and essential in political system (Roger, 2016). They always have conflicts and disputes this is why they are not successful to promote good governance. The relationships of these stakeholders are not very sound. They do not stay in their own domain, limits and always having influence on policy formulation or policy implementation. The influence is devastating in spite of their supervisory role to make sure they are working smoothly governmental affairs (Usang & Salim, 2015).

Sub theme 1: Power Conflict

In policy making process people use power and force from policy making to policy implementation and mold and tilt policies according to their own interest. This is why policy making process are not much satisfactory because it leads to biasness partiality. Powers allows the officials to make whatever policy they want to make, this is why proper and equal education system is always ignored and our politicians and bureaucrats did not paid much attention towards research area too.

Sub theme 2: Proper policy needed for university industry linkage

There is no proper policy from government side for university industry linkage however HEC has developed some programs like ORIC which play a role of bridge between industry and university. There should be proper policy and implementation and enforcement of policy to get the results and outcomes.

Theme: Good Governance

It is describe as "the sum of the many ways individuals and institutions, public and private, manage their common affairs" (Dingwerth & pattberg, 2006). This is a constant procedure through which interests, policies procedures can be managed in proper manners by following the rule of laws, transparency in decisions, accountability which changing interests are expressed through communications & Cooperation (UNDP, 2014). Several factors which are involved in contributing to good governance to prevails, citizen will be motivated to contributing in problem identification and issues in the society which are needed to be resolve.

Subtheme 1: Effective policy making process

If there are strong polices for all the stakeholders like academia, industries, HEC and also there is a proper policy to implement and engage academia and students to produce quality research.

Subtheme 2: Institutional development

Industries should know the value of academic research but the question is how? For this universities should conduct seminars and conferences to conduct talks and hold sessions and invite people and professionals from industry and let them know how universities can contribute and help them to resolve the issues. For example, if a company wants to conduct a survey and they want to know the demand of their customers they can get help from academia to get the date in proper and accurate manners.

Subtheme 3: Transparent Decision making and accountability process

The decision made by the top management or relevant stakeholders should be crystal clear, obvious, accurate, easy to understand, and relevant to the subject. In decision making process all the stakeholders should be involved and asked their opinion. Decisions should be made by following the rule of law, accountability fairness and justice. If there is any mistake made by any of the stakeholders they should inform and try to clear it out. All the stakeholders who are involved in decision making or implementation process they should be held accountable for their actions.

Theme: Awareness and Initiatives for IUL

If there is a strong linkage between academia and industry through academic research then there will be a lot of benefits attached. It can help to create awareness and knowledge in the society. Academia will be aware off the needs and demands of the industry and then can work for them. Same is the case with industry who can get help and a strong industry university and make sure that that the research and development activities in universities according to the demands and also it can play and contribute positively.

Subtheme 1: Easy access to information

Access to the information should be wide and open to everyone who is involved and part of the relevant information. It should be accessible to the students, academia or industry and they should also be aware if they have some obligations with the decision made by the top management people should know where to complain about this information and how to raise their voice because it's their right to accept or not. To get the ease of information is the methods, timeframe, progress and the results of the data.

Access of information should have a very direct link to awareness, and to educate which can improve the overall performance (Standard Institute, 2021). As per the respondent of academia there is information that students are not accessible to. Some areas where there is no internet students won't be able to know if HEC or universities announce any scholarships or research program.

Sub theme 2: Problem identification through academic research

Awareness and importance of Industry university linkage is not ignorable because it helps a lot to identify and dig out the problem in the society. A better identification of a problem can bring a better solution. For this academic research can play a tremendous role to find the issues and to understand the ground level problem and the nature of the problem to propose a better and suitable solution. At the same time we also look at the sensitivity of acceptance of the proposed solution. Solution should be always proposed according to culture and its norms, values, and behavior.

Subtheme 3: Development of research culture in universities

Development of research culture at universities is very important and it has a lot of benefits. Through research culture personal development and institutional development both could be enhanced because it has an impact on a research thoughts, the way he she behave, their attitude towards problem identification and to propose its solution. On the other hand it can also help universities to get foreign funding and grants for the research purpose. University's ranking can also be improved internationally. . It also help a lot to create an impact and influence on research career influences researchers' career he she may get more opportunities and avenues for work within a country or internationally. Researcher communication skills can be better and improved. They can perceive things better and propose solution with multiple strategies and ideas. To create collaborative environment in universities industry a research culture could be promote.

Theme: Importance of Institutional collaboration

Institutional collaboration is a much appreciated tool and it can accelerates the progress and also helpful to improve quality and prestige of all the relevant stakeholders. Academic alliance is advantageous to learn new teaching tools, to increasing knowledge and information of the learner and also help researcher to learn different methods and procedure to resolve a particular issue. Institutional competition and collaboration tend to lead to produce high-impact research and improve scientific performance (Zhou & Yuan, 2020).

Subtheme 1: Problem solving

This a technique or a process through which problem are solved. First we discover explore and identify problems, they we analysis the nature and intensity of the problem then we go for problem solving by research or propose some solutions. The purpose and goal is to reduce the hurdles, obstacles, and problems and to find out the best solution. There should be capabilities, resources and abilities to utilize those resources in institutes in order to make the best and more suitable policies for university industry collaboration in order to enhance and promote research.

Subtheme 2: synergy system

Synergy allows institutions to combine resources, personnel and data leading to more effective operations and policy efforts. These synergized institutions can also benefit from strategic partnerships, allowing access and produce more effective research and the ability to reach a larger and quality academic research and policy practices.

Theme: Collaboration areas

There are different areas where industries and universities can help each other by developing there communication and alliance both entities can collaborate with each other in different areas. For example public policy industry and academia can work together to produce a quality research which is helpful for both stakeholders it can also help to improve their ranking internationally. Other institutes will trust them more and give them more work to do. On top of all these benefits institutes will be able to develop a research culture at their campuses. Collaboration among universities and industries can also be very helpful to develop and promote other discipline like information and technology, health and sciences, engineering, businesses, management and administrations etc.

Subtheme 1: Internship Programs

This is very important for the industry to provide fellowship and internship programs to the students in universities. There will a lot of benefits associated with as we know that universities are considered as a hub of knowledge, industries can get an idea from the scholars to the growth of industry as well as to compete in the society. Different programs and internship are providing to universities students by industry so students can familiar to real work.

Subtheme 2: Funding

Now there are different scholarships programs national or international are available for students and researchers at universities to attract and motivate them to produce quality research. Different funding programs are initiated by World Bank and

implemented by higher education commission of Pakistan for academic research. Higher Education Commission of Pakistan are announcing different programs and grants time to time.

Subtheme 3: Research projects

Research projects are very important to promote and enhance educational growth. Research can bring innovation in institutes but make sure that all relevant stakeholders are involved to support and provide assistance to the research project.

Theme: Educational barriers

Empowered and independent institutions helping people to work together and bring innovation and creativity. This is very important for institutional growth if they promote equal opportunities and rights. There are two types of institutions it could be formal or informal. Some of the educational barriers are high ratio of poverty because inflation is very high so people cannot afford and difficult to survive on the top of that job in the market is very less, hard and harsh weather in different areas either its very cold or very hot in some of the areas so in those days mostly universities and schools are closed, people do not feel secure specially send their daughter to school because they have insecurities and also political instability is there, gender inequality can be seen in local areas, domestically in homes, lack of infrastructure, also they have very low resources. Education consider as one of the most significant for the maintainable socioeconomic progress of an area and an open instrument for human resources progress (Sohail & abbasi , 2018).

Subtheme 1: Political instability

There are many issues in our education policy for example allocation of the budget which is very less to manage and bring some innovations, and creativity, competition among institutes, another major issue is improper policy implementation. In the private sector system education methodologies and techniques are different while in public sector its very old teaching methodologies are being used for teaching, Faulty examination system, infrastructure is not updated ,and it's very poor in educational institutes, quality of teachers are not very good because no enough trainings are arranged for faculty. These all problems exist because of political instability if one government starts some initiatives then next government may not continue that project.

Subtheme 2: Gender Inequality

The gender disparity in Pakistan is evident at household level. It includes Distribution of food, education, health care, early and forced marriages, denial of inheritance right, mobility restriction, abuse, and violence. The gender discrimination is very old and common in Pakistani society, it means people pay more attention to sons' career, health, education, food and other freedom and liberties. But they do not treat women well they believe that woman do not need to get enough education and other freedom after all they leave parents' house.

Subtheme 3: Untrained Academic Staff

The ratio of proper rained staff at universities are very less. Government needs to take some initiatives for academic staff like to provide them regular training and workshops.

Theme: Environmental and social barriers

There are social and environmental barriers that reflects the education. Research is very helpful to know and identify suitable environment can play a better and significant role in the society. Some of the common barriers are low esteemed staff and academia, lack of understating knowledge, so it's important to build relevant and skillful knowledge to handle and tackle environmental. Where a research can freely and happily work.

Subtheme 1: Cultural issues

Cultural issues means a lot of problems and issues are associated with the culture and it could be race like people think there are more special than others on the basis of their norms, values, religion, cast, complexion, or ethnicity mean people belong from which ethnic group, religion issues like some or Sunni Shias Hindu Sikh or Christian, sexual orientation including male female, or transgender, and disability someone may have disability like if some is deaf, can't talk walk etc. Culture is a term that we use to refer to beliefs and customs employed by a particular group. There are different social issues existing in Pakistan for example of poverty is very high due to high range and increment of inflation, other than this some other social issues like unemployment is increasing day by day because there are no enough jobs in the markets, ,high inflation and poverty is the major cause of crime which includes all big and small crimes like street crimes, stealing money and other valuable things, even murder and bomb blast, low status of women in this society people do not pay much intention and value towards women, in rural and backward areas the ration of child marriage is very high, also there is

harassment issues like rape, and big difference between women and man because of gender inequality.

Subtheme 2: Climate

Deficiencies and aggregate temperatures are leading towards low cultivation of food and crops. This causes malnutrition among students, which impairs their retention and learning performance. Lack of food also increases absenteeism from university. Furthermore, students may be removed from university to support the household. Because Pakistan is an agricultural country so most of the people are doing farming here. If business are not doing well they cannot afford and they do not send their kids to school. Some time there is land sliding or snow falling so students can not travel because transportation system gets damage.

CHAPTER – 5:   Findings and Discussions

We have explained themes and subthemes in detail by the help of literature review in chapter 2. All the research questions are addressed one by one.

- In a very first question RQ1 researcher has identified and explored the gaps between policy practices and academic research. There are certain issues which are existing in this system such as low resources, lack of awareness, and coordination, no proper trained staff, no research culture in universities timeline for research is not followed by students old education system, power conflicts, not proper policy for university-industry linkage etc. the challenges faced are from different stakeholders. There is no proper research culture developed in universities if students have a choice in research and course work they prefer to do course work and reluctant to do research. Students do not follow the time line, due to a lot of delays scholars just want to meet the deadline and cannot produce the quality research.

- In Pakistan, our education system is very old and it's not a uniform and latest education system we have adopted from colonial establishments. This system is very old and underdeveloped in the world. This system needs critical and urgent attentions to modify according to latest knowledge and literature. This is why this education system has lot of problems which needs to be addressed. Some of the problems are low budget, untrained teachers, old exams taking methodologies and techniques, alarming dropouts, education without direction, and poor supervision standards.

- In Bureaucratic Setup politicians and bureaucrats are the major players who interfere with each other (Roger, 2014). These two entities always have power issues for this they interfere but do not accept each other existence. The influence is devastating in spite of their guidance to make sure to run smooth governmental affairs (Usang & Salim, 2015). People have conflicts with each other for power and its use. They believe they are superior so they always want to bring changes into existing policies to safeguard their own interests.

- Policy makers and politicians are influential people, they have greater impact from policy making to policy implementation as power politics. Such conditions leads to mistrust, power struggle using force to gain power and tilt policy for their own interests.

Powers allows the officials to make whatever policy they want to make, this equal education system is always ignored and by politicians and bureaucrats. They also did not paid much attention towards research area.

- There is no proper policy from government side for university industry linkage however HEC has developed some programs like ORIC which is a great effort in industry and university networking.

- Good governance is defined the environment, and a setup where different stakeholders like (institutions, industries, profit making or nonprofit making, NGOs, public sector, private sector or individuals) are working under set rules and regulations in a proper, transparent manners by follow the rules of law. In this continuous process always interests and relationships are articulated through actions of accommodation & Cooperation.

- There is a need of strong policies for the linkage of all stakeholders like academia, industries, HEC.

- Value of research and stakeholders' interest could be identified to achieve the goals through proper policy making process. For example, if a business leader only considers the interests of their investors, they may make a decision that negatively affects the customer or employee. So research is very important for problem identification, policy formulation and decision making. Strong check & balance on institutions can held people accountable for their decisions and actions. It can give a direction and authority to institutions to held people accountable for their actions and to ensure people do not misuse their power. Power lead to unjust in the society.

- Transparent Decision making mean people should know their jobs and they do it in proper manners which needs to be crystal clear. People needs to understand the decision-making process. People are unaware and in rural areas they do not have accesses to information and they are not informed from the decisions made by the stakeholders.

- Awareness is very important for both universities and policy industries. Academia some time does not know the decision made by the relevant stakeholders and same is the case with policy industries without research they never know the needs and demands of the people and society. Research can create awareness and offers an enabling environment to increase creativity, innovation, and competition among stakeholders.

- There is a need for ease and quick access and availability of information to everyone like to the students, academics, industry. Helps for problem identification and its solution awareness and importance of Industry university linkage is not ignorable because it helps a lot to identify and dig out the problem in the society. A better identification of a problem can bring a better solution.

- To develop a research culture in Pakistani educational institutes policy makers needs to focus on academia and researchers behaviors, learning research strategies, improving communication skills, and specially the environment where a researcher is going to conduct a research needs to be easy going, flexible, and friendly then it will be easy for a researcher to accomplish the tasks and targets. It also effects the researcher's strategies, plans, and area of study is directed and linked.

- To create collaborative environment in universities industry a research culture needs to be promoted. Institutional collaboration can be appreciated and enhanced through suitable policies which can be helpful to enhance the progress and development among the institutions. Collaboration can also play a vital role to enhance and promote the growth of the different stakeholders. There should be problem solving abilities in institutes to make best policies for university industry collaboration in order to enhance and promote research.

- Synergy allows institutions to combine resources, personnel and data leading to more effective operations and policy efforts. These synergized institutions can also benefit from strategic partnerships, allowing access and produce more effective research and the ability to reach a larger and quality academic research and policy practices. Policies should be clear and consistent, creating standards that apply to all stakeholders.

- Awareness and education in the society is needs to be enhanced and updated for upcoming generations as it gives us a direction, skills, knowledge, and mind map to do something positive and productive. Societal development needs to be quick and on fast tracking base through education so people can understand and change their behavior, actions, and attitudes towards developments and its acceptance.

- Different programs and internship are providing to university students by industry so students can familiar to real work. Different funding programs are initiated by World Bank and implemented by HEC for academic research. Empowered and independent institutions helping people to work together and bring innovation and creativity. This is very important for institutional growth if they promote equal opportunities and rights.

There are two types of institutions it could be formal or informal. Some of the educational barriers are high ratio of poverty because inflation is very high so people cannot afford and difficult to survive on the top of that job in the market is very less, hard and harsh weather in different areas either its very cold or very hot in some of the areas so in those days mostly universities and schools are closed, people do not feel secure specially send their daughter to school because they have insecurities and also political instability is there, gender inequality can be seen in local areas, domestically in homes, lack of infrastructure, also they have very low resources.

- There are also some other barriers like one of the most common barrier is communication for example Some in the classroom student are not paying enough attention towards lectures, so they do not listen what teacher is talking about, people may do not perceive things exactly as they are in a proper manner, lack and low skills of speaking and interpretation.

- The substantial and most important issues which are not ignorable are Education system are there is no proper and fair allocation of educational budget, and also policy implementations are not done properly, the examination system of faculty is not very satisfactory in many universities teachers do not teach students for learning but just to pass the exams which is not helpful for the growth of their career, infra structure is not very attractive and satisfactory, low quality of academia , low staffing, Purposeless Education system, drop outs are very high student do not complete their education and leave the university, very high involvement of politicians they do not paying attention towards educational system growth, , at both sides corruption is high like teachers do not teach properly and effectively and also they come late in class on the other side student do not complete their work timely , very irresponsible and low quality management Administration. The structural improvements and changes are very necessary in education system of Pakistan however it could not be done through government but government also need to engage academia and other stakeholders in order to do modifications.

- In Pakistan there is no uniform and same curriculum for the students. The people who can afford private and expensive learning institutes they go for those institutes and enroll themselves where they can learn latest education system and knowledge but in public university syllabus and curriculum are is very old. Similarly there is no

developed and established research culture in the universities of Pakistan which is not letting academic research and to bring fruitful results.

- Through creativity research and innovation can be enhanced for example using latest methods, techniques, technologies and linking to creative thinking. So if there is creativity then a quality research could be produced. Not enough trainings given to academia this is why the ratio of untrained and non-skilled academia is very high. A continuous and proper training for academia is necessary to minimize this issue.

- There are environmental barriers that reflects the education. Research helps to better know and realize that the decisions are having a strong influence and effect on the environments. This is very essential for the government to create awareness and building skills, knowledge, methods, technology, policies and procedure.

When we talk about cultural issues then its means a lot of problems and issues are associated with the culture and it could be race like people think there are more special than others on the basis of their norms, values, religion, cast, complexion, or ethnicity mean people belong from which ethnic group, religion issues like some or Sunni Shias Hindu Sikh or Christian, sexual orientation including male female, or transgender, and disability someone may have disability like if some is deaf, can't talk walk etc. Culture is a term that we use to refer to beliefs and customs employed by a particular group. There are different social issues existing in Pakistan for example of poverty is very high due to high range and increment of inflation, other than this some other social issues like unemployment is increasing day by day because there are no enough jobs in the markets, ,high inflation and poverty is the major cause of crime which includes all big and small crimes like street crimes, stealing money and other valuable things, even murder and bomb blast, low status of women in this society people do not pay much intention and value towards women, in rural and backward areas the ration of child marriage is very high, also there is harassment issues like rape, and big difference between women and man because of gender inequality. Gender inequality can also can be seen at domestically in home like injustice in food distribution schooling, healthiness, and forcefulness. This is why many people cannot enroll there self in universities for education.

Discussion on Policy Practices and Academic Research

Academic research is mechanism to identify and dig out the issues in the society to incorporate the community from policy formulation to policy implementation with the help of academic research in (Chapter 2). All the stakeholders who working together and having good sort of bonding and linkage they always bring creativity and innovation in the society. And joint ventures and collaborations are influence and have a greater impact on decisions making process. Cooperation can give a direction to institutes and other stakeholders to increase effectiveness and efficiency of work and also helping in producing quality research increasing the efficiency and quality of academic research which has a greater impact on government, Industry, and academia which is explained very well in chapter 2. The main target is to bring the industry and academia nearby to each other through government to promote academic research and which will have a greater impact on problem identification and policy practices. The concept of triple helix model has developed over time around the globe but it's not very developed in Pakistan yet. It has defined as the involvement of academia to develop research in universities and also engage industry.

The efficiency of policy practices is trying to enhance through research. And government is trying to make and implement different policies through HEC. The main goal is to create linkage between academia and industry. In this research we focused on public policy industry.

There are several factors affecting that affect the academic research and policy practices this is why there is a gap between academia and industry. We have tried to explore and identified the real issues at both side's academia, industry as well as HEC. Interviews were conducted from the University, ORIC, Public policy industry, and HEC officials to dig deeper into the factors affecting academic research and policy practices. Qualitative approach were being used to identify and analysis the issues. In chapter 3 we have analyzed to address the research questions.

The universities in Pakistan have traditional teaching institutions, which produce non-skilled, incompetent and untrained graduates, which are of no use industry. In fact, universities could not develop a culture of academic research in a proper way in our campuses for obvious reasons (Jawad, 2018). The innovation from universities has a lot of benefits and one of the major benefit is it helps to attract industries and businesses. The academic research and the relation of other stakeholder's let each other for a sustainable and continuous growth in their domains and areas. They benefit each other to promote research and also to grow their

businesses so there is a win situation for both industry and university for the collaboration, faculty can also gain the prestige through research grants and funds (Lederman, 2014) (Chapter 2). However, HEC has announced different thematic research grants, national program research universities etc. the aim is to promote research culture in universities. But in this study, we have discovered the major issues faced in this environment is absence of awareness, low coordination, limited financial resources, lack of trust, and lack of capacity (Chapter 4). I have also found there are numerous factors that affect academic research and policy practices Lack of seriousness from both the university and industry side for example fear of public speaking, lack of institutional strength, low involvement of common people, no accountability, no transparency in decision making, no proper guidelines from supervisors to students etc. (chapter 4). Literature also suggests that to increase the awareness and coordination in the society leads to more satisfaction, to provide more quality research and help to formulate and practice a policy. If students do not know about different research programs and grants then they won't be able to contribute and participate to produce quality research (Chapter 4).

It is concluded that there are many issues and problem academia is facing are still there and development of good governance could not promoted, and the development of god governance is just a dream. Same is the case with policy practices if there is good governance promoted through transparent decision making, accountability, and to promotion of rule of law then there will be a smooth running of policies and of course it will be helpful for development of research culture in universities. Policy industries and academic institutes can play a significance role in order to enhance academic research and policy practices through collaboration and having a strong institutional linkage. But this could not be done alone without having strong policies and involvement of government.

Pakistan's universities need to produce more quality graduates who not only have professionally well-sourced good resources but also they should be morally organized and well-developed. Universities must educate their student with the latest relevant knowledge, and skills but also some social norms and values, to behave nicely in the workplace. Hence, Islamabad University's mission should be to produce industry-specific graduates along with relevant skills. The study's purpose is to produce more quality and knowledgeable graduates who can either start entrepreneurship or become an asset for an industry which is also a good idea for societal development. The universities of Islamabad Rawalpindi need more structural changes at their campuses it could be to have a uniform curriculum and to adopt some dynamic approaches to develop a search culture which is the need of the current time.

CHAPTER – 6: RECOMMENDATION AND CONCLUSION

The purpose of this study was to identify the gaps between policy practices and academic research. According to the findings of the study and the data we have collected through qualitative approach various challenges and problems are identified. There were total four research questions which are RQ1, RQ2, RQ3 and RQ4. In order to address these questions we have used thematic analysis for this we have taken interviews and collected data from the relevant stakeholders which are described and transcript in chapter 1 and chapter 3.

The gaps and disconnect are categorized in border themes. The issues are faced in the system such as lack of resources, lack of awareness, and lack of coordination, no proper trained staff, no research culture in universities timeline for research is not followed by students old education system, power conflicts, not proper policy for university-industry linkage etc. the challenges faced are from different stakeholders. Similarly the challenges posed by the There is no proper research culture developed in universities if they have a choice in research and course work they prefer course work and reluctant to do research. Students do not followed the time line this is why a lot of delays in the research in result at last time when they try to complete research then they cannot produce quality research. In Pakistan, the education system adopted from colonial authorities has been described as one of the most under developed in the world. This is why this education system has lot of problems which needs to be addressed. For example some problems are lack of budget, lack of teachers training, examination system, alarming dropouts, education without direction, and poor supervision standard.

In Bureaucratic Setup politicians and bureaucrats, these are the major players who interfere with each other (Roger, 2014). In the relationship of these two entities have power issues and they always interfere but do not accept each other existence. The influence is devastating in spite of their guiding to make sure to run smooth governmental affairs (Usang & Salim, 2015). Power conflicts are very high because in this system people are hungry for the power and its use. They believe they are superior they always want to modify and being changes into existing policies even according to their own interests. They are very influential people so they have greater impact from policy making to policy implementation as power politics. Such condition leads to mistrust, power struggle using force to gain power and tilt policy for their own interests. Powers allows the officials to

make whatever policy they want to make, this is why proper and equal education system is always ignored and our politicians and bureaucrats did not paid much attention towards research area too (Iqbal, Jalal & Mahmood, 2018). Not proper policy for university industry linkage there is no proper policy from government side for university industry linkage however HEC has developed some programs like ORIC which play a role of bridge between industry and university. Good governance is defined the environment, and a setup where different stakeholders, institutions, industries, profit making or o profit making, NGOs, public sector, private sector or individuals are working under set rules and regulations in a proper, transparent manners by following the rules of law. In this continuous process always interests, linkages and relationships are articulated through actions of accommodation & Cooperation (Ashraf et al, 2018). Strong policies for all stakeholders if there are strong polices for all the stakeholders like academia, industries, HEC and also there is a proper policy to implement and engage academia and students to produce quality research.

Value of research and stakeholders' interest could be identified and to achieve that it's important to put pressure on government for agenda setting in order to accomplish different needs and requirements through policy making process. For example, if a business leader only considers the interests of their investors, they may make a decision that negatively affects the customer or employee. So research is very important for problem identification, policy formulation and decision making. Strong check & balance in institutions strong check and balance can make people accountable for their decisions and actions it is important because to have a strong checks and balances can give a direction and authority to institutes that every person should be held accountable for their actions. And also to ensure that people do not misuse their power because of power lead to unjust in the society. Transparent Decision making mean people should know their jobs and they do it in proper manners which should be crystal clear. People should understand the decision-making process and also the decision made by the government. But this is not acceptable and should not be promoted that people are unaware and they do not have accesses of information and they are not informed from the decisions made by the stakeholders. Awareness is very important between institutes and scholars. Academia should know the decision made by the relevant stakeholders and their demands in the market and in the society. It offers an enabling environment in order to increase creativity and innovation and let institutes to bring competition. Ease and quick access of information the openness sharing to the information mean that information are easily available to

everyone available to the students, academics, industry where to about issues and problems in the society. Helps for problem identification and its solution awareness and importance of Industry university linkage is not ignorable because it helps a lot to identify and dig out the problem in the society. A better identification of a problem can bring a better solution. To develop a research culture in Pakistani educational institutes policy makers should focus on academia and researchers behaviors, learning research strategies, improving communication skills, and specially the environment where a researcher is going to conduct a research should be easy going, flexible, and friendly then it will be easy for a researcher to accomplish the tasks and targets. It effects the researcher's strategies, plans, and area of study is directed and linked. To create collaborative environment in universities industry a research culture could be promoted. Importance of Institutional collaboration such an important and appreciated way of through which be very helpful to enhance the progress and development among the institutions within or outside it is also playing a vital role to enhance and promote the growth of the stakeholders. There should be problem solving abilities in institutes to make best policies for university industry collaboration in order to enhance and promote research. Synergy system. Universities are considered talent, capability, and knowledge centers and knowledge lead to innovation and creation so knowledge can play the role of bridge between university and industry. Knowledge comes with academic research. Academic research always acts as a concrete bond between institutions and stakeholders. But the major issue is many students do not get jobs after completion of their studies. One of the major reasons is they are not familiar with practical knowledge and experience. This is important that universities should create a strong link. For this, they should start internship programs with the collaboration of industries by inviting experts and professionals from the industries to hold talks, dialogues, seminars, and conferences. Academic research can also support industries for problem identification.

Synergy allows institutions to combine resources, personnel and data leading to more effective operations and policy efforts. These synergized institutions can also benefit from strategic partnerships, allowing access and produce more effective research and the ability to reach a larger and quality academic research and policy practices. Policies should be clear and consistent, creating standards that apply to all stakeholders. Awareness and education in the society is very helpful for the society and for upcoming generations as it gives us a direction, skills, knowledge, and mind map to something positive and if there are problem it could be handled at initial stage through education a societal development is

very quick and on fast tracking base because people can understand and change their behavior, actions, and attitudes towards developments and its acceptance and appreciation. It is concluded that there are many issues and problem academia is facing are still there and development of good governance could not promoted, and the development of god governance is just a dream. Same is the case with policy practices if there is good governance promoted through transparent decision making, accountability, and to promotion of rule of law then there will be a smooth running of policies and of course it will be helpful for development of research culture in universities. Policy industries and academic institutes can play a significance role in order to enhance academic research and policy practices through collaboration and having a strong institutional linkage. But this could not be done alone without having strong policies and involvement of government.

Hence, investigating current industry-academic links in the twin cities is very important to accomplish efficiency and industrial effectiveness in Islamabad Rawalpindi. However, a review of the existing literature on academia-industry-government (see Chapter 2) found that there is not enough information available on university and industry developments. Therefore, there is a need to find out more opportunities associated with the linkage between industries and academia in order to promote and enhance academic research and policy practices. The information and data gathered and generated from this study is not only helpful for the higher education of Pakistan but also will be very useful for academia, researchers, and industries, and professionals.

Recommendations:

On the basis on the findings and the conclusion of the study we have now, as different institutes gave different recommendation in order to reduce and minimize the gaps between university industry linkages. Which are given below:

- Academic research is helpful to increases the flow of information and knowledge in order to enlighten and strengthen the belief and approach of the researchers as well as students and faculty. Academic research is also very useful and helpful for the improvement and promotion of quality of work and promptness in the development of universities and academia in Pakistan.

- Universities part is very indispensable and crucial in order to increase their links to achieve quality while industry in return also supports from the linkages and relations. However, in well develop countries universities do reengineering to improve the

prestige and meet their financial requirements. For example, industry benefits through academia supplement companies and knowledge allowing while academia meets its financial needs through these services and activities. In all around the globe those Universities who are financially strong the always compete in the society and produce skillful and quality graduates. Both universities and industry bonding can increase and get more chances of opportunities and opening new venues for collaboration in different other sectors as well.

- Need capacity building for developing and strengthening the skills, instincts, abilities, processes and resources that universities and policy industry need to survive, adapt, and thrive in a fast-changing world.

- Skill building for research is necessary in universities.

- Strong coordination is needed between universities and policy industries to enhance and promote academic research and problem identification. Through regular coordination both stakeholders can discuss and work for the societal requirements and needs.

- Structural changes are needed at both universities and industries end to promote research culture.

- There is no uniform and same curriculum for the students. The people who can afford private and expensive learning institutes they go for those institutes and enroll themselves where they can learn latest education system and knowledge but in public university syllabus and curriculum are is very old. Government should play its role by engaging industries and universities and design curriculum according to the requirements and needs of the society. Knowledge should be updated and curriculum should be uniform for all the students.

- Hold interactive sessions, seminar and talks with professional and expert from both universities and industry sides to raise and highlights the issues and solutions.

- Industrial participations is essential, Industries can contribute in order to address these issues. This is also very helpful for industries to create resources and prestige if they contribute more in policy practices and decision making.

- It is observed many students do not know about different funding programs by HEC or other government initiatives. There is a need to create awareness through social media or holding session in universities by the Higher Commission of Pakistan and government.

- Trainings and counseling is necessary for the grooming of the students. Universities and industries should conduct workshops, and topic specific activities, which can be very helpful to create awareness and skill buildings.

- From industry side there are more trainings required to create resources

- Create strong MOU's & contracts between academia and industries to work together.

- There are many social barrier and constraints are observed for example, gender discrimination, racism and language barriers, and weather or climate issues. All government, universities and industries should work together to minimize these issues to develop an environment friendly policies to facilitate people and engage them to participate.

- Government and Universities should bring friendlier environment to motivate and facilitate researchers to produce quality research.

- High level and continuous trainings needed for the teachers and professors to bring latest learning skills and techniques, which can help to promote knowledge creation and research.

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