Universitetet i Bergen

Institutt for administrasjon og organisasjonsvitenskap

AORG 351

Master's Thesis in Public Administration

Summer 2021

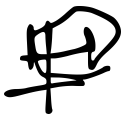
Public Trust and Healthcare Institutions:

A Quantitative Analysis in Pakistani Healthcare Contexts

Hina Javed

Declaration

I, Hina Javed, hereby declare that this thesis is my own original work and has not been submitted to any other university for a similar or any other degree award.



……

Signature

28/07/2021

……....

Date

Acknowledgement

I would like to take this opportunity to thank my supervisor Ishtiaq Jamil for his support and guidance that helped me produce this work. Without his critical feedback, it would not be possible to pursue this project. I am further grateful to the University of Bergen for granting me the opportunity to pursue this master's program and cooperating with me due to all my health concerns.

My fieldwork wouldn't have been possible without the support and cooperation of the respondents. I would like to extend my appreciation for the guidance I received from the senior and junior staff including my course-mates at the University of Bergen.

I dedicate this thesis to my parents for their unwavering emotional and financial support. They are the reason I was able to pursue this degree. I extend my sincere gratitude to my partner, Stian Fantoft Alvestad, for his emotional support, care and love. Finally, I would like to thank all my friends who supported and advised me throughout the process.

Table of Contents

Abstract

This paper presents a case for generalizing Seok-Eun Kim's model of public trust to healthcare institutions. The model consists of five variables that together conceptualize trustworthiness: credible commitment, benevolence, honesty, competency, and fairness. Respondents were asked to answer questions that captured these variables with regards to two hospitals in Karachi, Pakistan: Jinnah Postgraduate Medical College and Aga Khan University Hospital. The sample consisted of 41 people and was collected through snowball sampling, which compromises its randomness.

Seven hypotheses were tested. The first five consisted of seeing if Kim's variables are related to institutional trustworthiness. Of these five, the first and third null hypotheses were rejected, with the variables (credible commitment and competency) having a positive correlation with institutional trustworthiness. Benevolence, honesty, and fairness were not significantly related to institutional trustworthiness. The sixth hypothesis claimed that an average of Kim's variables would be positively related to measures of institutional quality (which are typically taken to be predictors of institutional trust in the literature). This null hypothesis was rejected, and there was a positive relation between the two variables (however, this was primarily due to treatment quality, as this was the only statistically significant measure of institutional quality). Lastly, there was a statistically significant, positive correlation between the average of Kim's variables (an operationalization of institutional trust) and interpersonal trust, which provides support for the theoretical mechanism being put forward, which claims, *inter alia*, that interpersonal and institutional trust reinforce each other in a feedback loop.

Chapter 1: Introduction

While trust is a ubiquitous element of social interactions, it has historically seldom found a place on a policy agenda. This may be due to the difficulty of implementing it. For instance, it is relatively easier to budget for the construction and operation of a school than it is to implement a trust-building plan in a community. Construction and operation are not heavily contingent on the society in which they occur. Schools tend to operate similarly across the world, with similar roles and rules. Of course, there are additional rules enforced by a community's culture, such as limitations on the curricula, but the foundation is the same.

Similarly, the foundation of trust-building is also the same across the world. The ground is established by a trustworthy trustee (the agent being trusted). However, this is where trust-building loses many policy planners. What determines trustworthiness? Competency and performance are good starting points, but they are not exhaustive. For example, would people in Pakistan, a country with implicit and explicit religious boundaries on the scope of its politics, trust a non-Muslim to lead the country? Trustworthiness seems to be an inherently subjective attitude, which is anathema to policy design, as the results of policies cannot easily be predicted.

The interest in trust as a policy tool has accompanied an increasing awareness of the tensions between the needs of the citizenry and structures of government. Two of the most glaring examples of these are the United States and China. The former's state was founded on a liberal mistrust of government (Locke and Popple, 2018). Accordingly, the U.S. state is constituted by a plethora of checks and balances to increase accountability and hamstring performance. In contrast, China's state lacks these checks and balances, giving the government much more

freedom to act (Tsai and Naughton, 2015). This comes at the expense of a lack of accountability, which enables the government to shirk domestic and international interests.

This tension manifests itself at times of crisis. State-wide crises like the economic downturn brought on by COVID-19 increasingly allude to the need to give governments some freedom to act to prevent what could be multigenerational problems. Similarly, issues of oppression, such as China's treatment of the Uyghur people, highlight the possibility of a misuse of power to the detriment of the citizenry. Furthermore, this tension seems to be a contradiction inherent to states. Too much power can harm people in some ways, while not enough power can harm people in other ways.

Trust seems to offer governments a way out of this Catch-22. By fostering trust between government and people, governments have greater freedom to act, as people trust them to not misuse their freedom. Similarly, governments will not misuse their freedom to maintain the trust that their people have in them. While this may seem idyllic, it is an interesting solution to the tension. At the very least, it will complement other approaches to assuage this tension.

Research in this area seems promising, which suggests that trust has the potential to remedy a multitude of tensions in relations of reliance between one, necessarily weaker agent (the trustor) and another stronger agent (the trustee). I see Seok-Eun Kim's model of public trust as general enough to apply to institutions beyond the state (Kim, 2005). In particular, I am interested in hospitals and trust in a healthcare context. Consequently, my goal with this study is to examine if Kim's model of public trust is generalizable to healthcare institutions, as this will provide a theoretical foundation for the study of trust in healthcare institutions. Furthermore, I wish to see

how his model, if it is applicable, fits into the current mechanism of action through which trust operates and is generated.

Research Objectives

1. To examine if Kim's model of public trust can be generalized to healthcare institutions in Pakistan.
2. To further specify the mechanism through which trust in healthcare contexts enables the operations of healthcare institutions.
3. To explain how Kim's model of public trust could fit into the mechanism of action supported by the literature on institutional theories of trust and the relationship between institutional and interpersonal trust.

Research Questions

1. What role does trust play in healthcare contexts and is this role essential to the operation of healthcare institutions?
2. Do Kim's five variables exhaustively conceptualize trustworthiness and how is trustworthiness connected to trust?
3. Which gaps do Kim's variables fill in the current literature on the role of trust in healthcare contexts?

Research Expectations

1. Trust rectifies doubts arising from the information asymmetry that is typical of most patient-provider relations (where patients are usually less informed than their physicians).
2. Kim's variables provide an exhaustive description of trustworthiness, and trustworthiness is a necessary and sufficient condition for trust to occur in patient-provider relations.
3. Kim's variables will connect the objective features of a healthcare institution to the attitude of trustworthiness, thereby fitting in with institutional theories of trust.

Importance of the Study

As implied in the introduction, it is easy to recognize the importance of trust in society, difficult to conceptualize trust, and even harder to implement a trust-building policy. The question of policy design and implementation does not concern me in this study, as these questions are relevant only after one has properly conceptualized and operationalized trust.

I believe Kim's variables, if verified, can plug a gap that could problematize policy design. As I will discuss later, there is a consensus among institutional theorists that the performance of an institution and other objective measures of its quality are the main determinants of trust. I do not intend to contradict this. However, I do believe that this study will add an important distinction to this belief. Namely, these objective features of institutions are the objects of atomic attitudes, which then, together, produce the more complex attitude of trustworthiness. This distinction is important, as the features of an institution are consistent with various, even contradictory attitudes. Consequently, an institution performing well is not guaranteed to generate attitudes of trustworthiness.

Chapter Two: Context

2.1 Literature Review

Overview

Trust underlies virtually every social interaction, so it occupies some space (be it explicit or implicit) in every kind of social inquiry. This pervasiveness is evident at each end of the social science spectrum, from the concreteness of economics to the abstractness of philosophy. Accordingly, one can discover a surfeit of literature on trust from a diverse number of perspectives.

Philosophers (Baier, 1986; Hawley, 2014) have spent millennia ruminating over the definition, importance, and ubiquity of trust. The years of effort have generally been characterized by a focus on interpersonal trust. Despite being hegemonic in the domain, interpersonal trust is not the only kind of trust discussed, nor is it mutually exclusive from other kinds of trust. For this paper, I will focus on interpersonal and institutional trust. Of particular importance are the conditions in which trust is warranted and possible.

What is Trust?

Most philosophers construe trust as an attitude held about another person or a two-variable predicate. The general schema is A trusts B with X (Baier, 1986) where X can be some action or object. Baier introduced the distinction between trust and *mere* reliance, and it has since become part of philosophical parlance (Baier, 1986). According to Hawley, trust is an attitude of reliance,

but it is more complex than mere reliance (Hawley, 2014). The latter refers to a relation that human beings can also have with inanimate objects. For instance, it is difficult to maintain the position that Mary's reliance on his stove for cooking is of the same kind of relationship as Mary's reliance on Bob to keep her secrets. Since people can alter their nature, trust involves reliance and some additional property that explains why we believe those we trust will not change their nature.

This indicates another issue that occupies the minds of many philosophers: the risks of trusting. Baier and Hawley agree that trusting involves bearing some degree of risk and vulnerability. According to Baier, trust involves being vulnerable to not only disappointment, but also betrayal. This is one of the elements that distinguishes mere reliance from trust. For example, suppose that Mary's stove fails to light. Most people would reasonably ascribe disappointment, annoyance, etc. to Mary, but one would hesitate to say Mary feels betrayed (in a literal sense) by the stove's failure. In contrast, if Bob told others Mary's secrets, one would reasonably say that she feels betrayed. Of course, if, say, Bob forgot to make Mary coffee despite her trust, one would not say that Mary feels betrayed. Baier's point is that a relationship of trust must contain the possibility of betrayal (i.e., it must be possible for B to betray A).

Betrayal is generally a negative experience (people would prefer to not experience it). Yet, trust remains omnipresent in social relations. This tension does not have a clear solution. Despite being a key element of trust, force does not sufficiently explain away this contradiction. This force is not of the physical sort. Rather, it is a product of the human condition. For instance, a single person does not have the capacity to specialize in medicine, finance, and teaching. Consequently, a person will specialize in one and rely on others to fulfil the other functions. Besides force, people attempt to minimize the risk of betrayal through, *inter alia,* surveilling and

supervising the people they trust. The hope is that by supervising, one can ensure the person they trust remains willing to do what one has trusted them to in a competent manner. However, there is a threshold after which surveillance indicates distrust instead of general risk management (Dasgupta, 1988). For example, we do not always supervise our friends, indicating trust. In contrast, attempts are made to always surveil prison inmates (Foucault, 1977), indicating a lack of trust. In conclusion, the human condition (force), risk management, and the acceptance of some vulnerability are the conditions in which trust is possible.

The final key issue of trust is its interplay with another omnipresent social phenomenon: faith (Zagzebski, 2012). The relationship between the two concepts hinges on their respective definitions, a complete discussion of which is beyond the scope of this review due to the numerous models of trust and faith. For our present purposes, it may help to distinguish between faith and trust on the basis of justifiability. Justifiability refers to the quality of the reasons that indicate one should trust another. Given the above discussion, fully justified reliance can be termed mere reliance since if it is fully justified, then there is no risk involved. Reliance with no justification can be termed pure or blind faith, as there is no appropriate reason to rely on another. Blind faith is emotional and devoid of reason. Lastly, partially justified reliance can be deemed trust. There are additional criteria for what counts as trust, and these three categories should be understood as lying on a spectrum. As one's reasons for relying on another grow, their faith in another is slowly replaced by trust. However, the *hope* that the trustee is willing to and capable of doing what you rely on them to do is common to both faith and trust (Zagzebski, 2012).

In summation, it will be useful to think of trust as a complex of an attitude of reliance on another and a justified belief in the consistency of the other's nature (i.e., they will remain willing and

capable of doing what one trusts them to). Additionally, holding this attitude involves bearing some risk and accepting this vulnerability. Lastly, it is important to recognize this as a definition of interpersonal trust. This is my definition of trust, and though this definition has substantial carryover into a more general notion of trust, additional qualifications on the definition will be introduced in the following sections.

What Explains Institutional Trust?

Virtually all analyses of trust begin by providing a definition. Once that is done, the relevant author will begin to identify the properties that explain trust and how these properties do so. A property is an attribute of some object that explains some feature of the object. For example, being black colored is the property of black coffee that explains part of its appearance. The set of properties cited to explain trust is diverse, but it can loosely be divided into four categories: institutional performance, culture, demography, and perceived trustworthiness. These are four of the most cited properties to explain an agent's trust in an institution and will be discussed in the following sections.

Before delving into the properties that explain trust, it is vital to define the things of which these properties are predicated. As discussed above, interpersonal trust occurs between two agents (typically persons). In contrast, institutional trust occurs between two agents of which one is a person, and the other is an institution (for a defense of group agency and agents, see List and Pettit, 2011).

'Institution' is loosely used in the social sciences to refer to an array of things, from rules to structures (as discussed ahead). However, all these definitions have some common features. Giddens, for instance, prefers an intuitive definition of institutions, relying on the reader's

perception. According to him, institutions are “the more enduring features of social life” (Giddens, 1984: 24). From this, one can glean that institutions persist and are somehow reproduced. In contrast, Turner offers a more detailed definition replete with references to structures, rules, behaviors, and more (Turner, 1997: 6). It will be fruitful to begin by thinking of institutions as a kind of social structure. These are sets of relations and roles (Ritchie, 2020) that are at least partially occupied by social entities (groups and people) and owe their existence to social variables. For example, a school has several relations between its roles, such as teacher-student, principal-teacher, parent-teacher relations among others. Additionally, institutions are established with some end in mind, so they are goal-oriented. For instance, a hospital is an institution established with the aim of delivering healthcare services.

Lastly, institutions have regularized patterns of behaving or operating. For instance, in a court of law, each case (barring rare outliers) is processed in the same way. Given the above features of institutions, one can succinctly define institutions as a set of rules. These rules establish relations and roles and ensure regularized behaviors with the aim of achieving some end. Institutional trust, then, is trust in these rules and their effectiveness. This much is admitted by Mishler and Rose, who define institutional trust as ‘the expected utility of institutions performing satisfactorily (Mishler and Rose, 2001). This definition is useful in that it simultaneously conveys the necessity of trust for effective institutional performance and the fact that trust is a consequence of institutional performance. However, identifying institutional trust with the expected benefit of institutions performing satisfactorily is somewhat unintuitive. A more intuitive way of thinking about trust could be to construe trust as strongly and positively correlated with peoples’ expected utilities (when people expect greater benefits, they trust more).

An intuitive starting point for the role and importance of trust in society is *vis-à-vis* the government. According to Kim, one of the key functions of trust in society is being a necessary condition for effective governance and the implementation of policy programs (Kim, 2005). This is primarily through resolving a central contradiction in governance between discretion and accountability. The greater a government's discretionary powers are, the greater is its flexibility in governance. The more flexible a government is, the greater its capacity to respond to problems and, therefore, govern better. However, it is seldom the case that a government with maximum discretionary powers will govern in a way that is acceptable to the electorate. Consequently, checks and balances are placed to ensure that governments remain accountable to their electorate. These checks and balances are designed to limit the discretionary powers of the government.

Kim developed a model of public trust that focuses on institutional trust, as the literature suggests this kind of trust has greater explanatory power than interpersonal trust in an institutional setting. The model presents five variables that affect variables that inform the trustworthiness of a government and, consequently, the public's trust in the government: credible commitment, benevolence, honesty, competency, and fairness.

One should note that implicit in this model is the claim that trustworthiness is a predictor of trust. Whether this is the case or not depends on how one defines trustworthiness. Kim's conception of trustworthiness and trust seems to exclude the persistence of historical biases. For instance, suppose a person you once trusted betrayed you. Since then, they have improved themselves and, by all accounts, meet the aforementioned five criteria of trustworthiness. Yet, one might be hesitant to trust them, as they fear doing so could hurt them. This issue is especially evident in

cases of abuse, such as sexual assault and police brutality. One may then expect the effects of betrayals to persist long after the causes have been worked away.

Despite this misgiving, there is much to be appreciated in Kim's conceptualization. Firstly, the conceptualization successfully navigates the difficulties of defining trust and emerges as an operationalizable definition. Secondly, the definition is not restricted to institutional trust (though it does not encapsulate the interplay between institutional and interpersonal trust). However, Kim did not empirically test the model. Other scholars have begun to fill in the empirical gaps. For example, Haque (2021) found that the model has significant explanatory power *vis-à-vis* patient-doctor trust in the Upazila Health Complexes in rural Bangladesh.

Institutional Performance

While not specifically for Kim's model, the literature on trust generally supports institutional variables as predictors of trust. Wong, et al. found that the performance of economic and political policies is a significantly better predictor of public trust in the government than cultural factors in six Asian societies (Wong, et al., 2011). However, one could take issue with the Asia Barometer Survey that the authors use. Since the survey took place in 2006, the effects of social media on cultural attitudes would remain unexplored (for instance, Facebook became available to everyone in September 2006). Using the same survey, Kim found that government performance is positively associated with public trust in South Korea and Japan (Kim, 2010). Askvik, et al. (2010) found similar results in Nepal, concluding that, once again, institutional performance is a significant determinant of trust in said institutions and cultural features (like political affiliation and religion) are not significant determinants. They also found a weak relationship between institutional performance and cultural features, assuaging suspicions of

culture influencing trust through institutional performance. The data collection method utilizes strata across class, gender, and age, yielding a representative sample. Lastly, Mishler and Rose conducted a similar assessment of cultural and institutional variables and their ability to engender political trust (Mishler and Rose, 2001). However, their sample consisted of post-communist countries in Eastern Europe, Central Europe, and the former Soviet Union. They also found significant support for the superiority of institutional theories over cultural explanations of the origin of political trust.

Culture

Despite the strength of the institutional approach, it is not without its quirks. A study by Baniamin, et al., yielded results that contradict common intuitions regarding the relationship between institutional performance and trust (Baniamin, et al., 2019). Despite wanting performance by the civil services in Nepal, Bangladesh, and Sri Lanka, they find high levels of institutional trust. Service impeding characteristics, such as corruption, explain part of this contradiction. However, the bulk of the explanation comes from authoritarian cultural orientations. Askvik and Jamil had earlier found this contradiction in Bangladesh, suspecting that some form of naïve trust is at play (perhaps this trust could be construed as faith) (Askvik and Jamil, 2013). Jamil, et al., also found that individual experiences with and perceptions of political institutions played a significant role in determining institutional trust. Interestingly, perceptions of the trustworthiness of civil servants and politicians (representatives of political institutions) was found to influence the formation of institutional trust (Jamil, et al., 2016). This suggests an interplay between the two kinds of trust, which forms the subject of the next section. Finally, Ma and Yang have also found authoritarian cultural orientations influence political trust independent of other variables (Ma and Yang, 2014). This suggests that while institutional

performance is a powerful predictor of institutional trust, it does not hold a monopoly on predictive power.

Demography

The monopoly institutional performance has over explaining institutional trust is further questioned by non-cultural and non-institutional approaches to institutional trust. Some researchers cite the perceived trustworthiness of an institution to be the property that explains most of peoples' trust in the institution. This will be discussed later *vis-à-vis* healthcare institutions. Another property is demography (i.e., properties of populations). Mirfardi examined the connection between social trust and demographic variables (gender, age, marital status, job situation, and education) and found significant positive relationships between the variables and trust (Mirfardi, 2011). This seems to suggest that people are more likely to trust people who are like them across various social dimensions. However, this is not immediately generalizable to institutions. Christensen and Lægreid examined, *inter alia*, the role of certain demographic variables on trust in governments (Christensen and Lægreid, 2005). However, the mechanisms they cite for the connection between demographic variables and institutional trust is particular to governments. For example, education is expected to raise trust in governments, as the more educated one is, the better one understands its organization (they do discuss counterarguments). Consequently, this is not generalizable to all institutions, but it does point us in the direction of a relationship. This seems to suggest that cultural values and perceptions of trustworthiness are not constant across a society; they vary across various demographic characteristics. This will be discussed in more detail in the section on perceptions of the healthcare industry.

In conclusion, there seem to be four dominant determinants of institutional trust: institutional performance, cultural attitudes and socialization processes, perceptions of trustworthiness, and demographic features. One should note that there is some overlap between all these variables. For instance, Sztompka defines institutional trust as depending on three variables: basic trustfulness (how willing people are to trust), reflected trustworthiness (objective assessments of how trustworthy an institution is), and the culture of trust (a society's attitude towards the idea of trusting) (Sztompka, 1998). Here, the former four variables are collapsed into the latter three variables. Basic trustfulness encapsulates demographic variables and cultural attitudes and socialization processes; perceptions of trustworthiness encapsulate institutional performance and perceived trustworthiness (the former being the most important part of an objective assessment of trustworthiness); and the culture of trust encapsulates demographic variables and cultural attitudes. Consequently, thinking about trust in terms of mutually exclusive determinants may smear the reality of the phenomenon. As I will discuss later, trust is a complicated concept that seems to elude a reductionist analysis.

The Interplay between Interpersonal and Institutional Trust

The above theories attempt to explain the determinants of institutional trust through non-trust variables, such as cultural dispositions and institutional performance. However, they are notably silent on different kinds of trust and how they interact. Of particular importance is the interplay between institutional and interpersonal trust. As defined above, institutions have roles that are occupied by people and relations that exist between people. It would then be reasonable to expect people to either generalize their trust from institution to individual or vice-versa. For instance, if

a person receives bad medical care from one doctor, they may deem the entire hospital untrustworthy.

Rus and Iglic found that institutional quality plays a pivotal role in determining which kind of trust economic actors rely on if they conduct their activities based on trust in Bosnia and Slovenia (Rus and Iglic, 2005). In strong institutional environments (like Slovenia), institutional trust dominates. In weak institutional environments (like Bosnia), economic activities are primarily mediated by contracts and secondarily through interpersonal trust. This is relevant for understanding how people approach healthcare institutions. In strong institutional environments, people trust hospitals to provide competent healthcare providers. In weaker environments, people cannot trust hospitals to do so, and so these people will likely rely on a handful of healthcare providers with whom they have had positive experiences.

Spadaro, et al., reinforce the above interpretation of Rus and Iglic's results. As mentioned, people are more likely to trust doctors if they are provided by a trusted hospital. This particular case can be generalized to other personnel and trusted institutions. According to Spadaro, et al., institutional trust can enhance interpersonal trust between strangers by increasing one's feelings of security (Spadaro, et al., 2020). For instance, if a person sends their child to a school they trust, they will feel fairly confident that their child will be taught properly despite never having met the child's teachers. Rothstein and Stolle ascribe similar importance to institutional structures to explain the origins of social capital (Rothstein and Stolle, 2008). According to them, social capital is, partly, generalized trust in relationships and values that enable a group to function. If one construes an institution as a network of relations, then trust begins at an interpersonal level and is then generalized to the entire network. For example, if a patient repeatedly encounters trustworthy physicians, eventually they will generalize their trust in their

physicians to the entire healthcare institution. However, while Rothstein and Stolle recognize this, they also argue that the role of institutional structures in generalizing trust is overlooked. In particular, procedural fairness, a property of institutions, informs citizen perceptions, including their perceptions of other people. Consequently, the institution plays a role in generalizing trust. In the same vein as the above example, if a patient enters a healthcare institution with knowledge of its procedural fairness, the patient is more likely to trust the people who work for the institution. However, Rothstein and Stolle do qualify their results by mentioning the uncertainty regarding causal direction. They suggest that their results do not invalidate the hypothesis that generalized trust enhances an institution's procedural fairness.

These studies – while not directly about healthcare institutions – indicate the importance of institutional trust in not only improving agent-institution interactions, but also engendering those actions in the first place. As the above studies show, people are much more likely to approach an institution or agent if they trust them or whether they come from a trusted source.

The above studies indicate institutional trust as partially causing interpersonal trust. In contrast, Baek and Jung conducted a study on the role of trust in informing organizational commitment and found that the relation flowed in the opposite direction (Baek and Jung, 2015). They follow Rousseau, et al., in defining trust as a "psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another" (Rousseau, et al., 1998: p.395). The authors find support for their mediation effect model, which maintains that interpersonal trust improves organizational commitment by cultivating institutional trust.

The mechanism by which this occurs is as follows. Institutions (which are a kind of structure) are instantiated or realized by people: people occupy the roles and interact with each other in rule-bound relations. Consequently, experiences of interpersonal trust are temporally prior to experiences of institutional trust. As a result, it is through interpersonal trust that one develops their institutional trust. Consider the institution of the government. One typically does not experience the *institution* of the government, but they do experience governments. It is from their experience with various governments that they determine whether the institution of the government is trustworthy. It should be noted that one's first experience of interpersonal trust need not be with a person who is a member of the institution. For instance, parents could help form their child's perception of the government. In effect, interpersonal trust between child and parent influences institutional trust between child and government.

Baek and Jung are not alone in testing the above mechanism. As they mention, the notion that interpersonal trust is influences institutional trust is one of the most interesting arguments among social scientists. Schilke and Cook have found evidence for a similar mechanism with regard to interorganizational relations (Schilke and Cook, 2013). One of the key contributions of their research is construing trust as a dynamic rather than static phenomenon. As the authors find, interorganizational trust exists at multiple levels that are intertwined, and this indicates that micro and macro-level trust processes are entangled. This lends credence to the claim that the relationship between institutional and interpersonal trust is not unidirectional: it is reciprocal.

In summation, the intent of this paper is to assist in clarifying the nature of the feedback loop that exists between interpersonal and institutional trust. The above research adds an additional dimension to the nature of trust if looked at as a whole: trust is a dynamic phenomenon that is irreducible to only people or institutions.

Public Perceptions of the Healthcare Industry

The literature on public perceptions of the healthcare industry generally focuses on what influences the images that form when a person thinks of healthcare. These images include doctors, patients, vaccines, altruism, greed, hospitals, and pharmacies. Since people have varying perceptions of the healthcare industry, it is difficult to pin down a definition that is satisfactory to everyone. Consequently, I am opting to loosely define the healthcare industry as the industry constituted by institutions set up to treat, prevent, or manage mental and physical ailments.

Hu, et al., found that negative perceptions of the healthcare industry are the majority in China, with positive perceptions being a somewhat distant second (Hu, et al., 2019). Additionally, the greatest number of negative posts (the unit of observation) were about patient-doctor relations. The study utilized China's social media platforms for its data, leading to a sizable corpus of data (29 million units). However, the study did not intend to explain the reasoning behind why these perceptions exist. Rather, its aim was to provide a method for monitoring public perceptions of healthcare. This suggests the usefulness of social media in acquiring data on public perceptions of the healthcare industry. Moreover, it seems to imply that social media also plays a significant role in determining these perceptions. However, this is not tested.

The COVID-19 pandemic has spurred research into various phenomena that had hitherto not received as much attention in the literature. One of these phenomena is the rise of a general skepticism towards the healthcare industry. This is by no means a new phenomenon. Viewing the pharmaceutical industry with askance has been in vogue for some time now. However, the discourse surrounding vaccinations has raised questions regarding misinformation and its ability to alter peoples' perceptions of the healthcare industry. A recent study by Volkman, et al. (2020)

provides reason to believe that social media has a significant and negative effect on perceptions of healthcare, at least among college students. According to them, increased social media usage is positively associated with an increase in negative beliefs about vaccines.,).

Even in the absence of this study, it seems intuitive that social media platforms influence peoples' perceptions and beliefs (including those of the healthcare industry). Social media is also used to spread fake news. These platforms are slowly becoming favored sources of news and information for many people. Research in various disciplines seems to confirm the suspicion that social media platforms have the power, for better or worse, to influence public attitudes. Freberg, et al., views this capacity for influence optimistically, suggesting that social media influencers can play a critical role in improving brand awareness (granted their sample is admittedly not representative) (Freberg, et al., 2010). In contrast, Helmus, et al., caution against this capacity for influence by elucidating its risks through Russian propaganda campaigns on social media platforms (Helmus, et al., 2018). In summary, any discussion about public perceptions of the healthcare industry is incomplete without extensive reference to the influence of social media.

While social media is a major source of health information, it is not the only source. An overview of the relationship between culture, society, and health by Nielsen-Bohlman, et al., provides additional sources of health information. These include news media, advertisements, and friends and family members (Nielsen-Bohlman, et al., 2004). Friedell, et al., made an interesting finding in their study on cancer control. They found that people with lower literacy levels often consult family and friends over books for information about cancer (Friedell, et al., 1997). While not fully generalizable, this does seem to suggest that anecdotes and interpersonal trust play a role in determining public perceptions of and, by extension, trust in institutions. Nielsen-Bohlman, et al., seem to ascribe the greatest role to news media for the dissemination of

health information. Seeing as this overview was written in 2004 and cites papers from before then, the magnitude of the role ascribed to news media should not be seen as representative of news media's power today. This power has been subject to fierce competition from social media platforms.

Despite the growing literature on social media and its effects on public perceptions, one aspect of the literature remains wanting: variations in social media consumption across demographic variables. The most-studied demographic variable *vis-à-vis* social media consumption is age. Unsurprisingly, the digital divide has led to different ways of consuming social media, including different sources of knowledge and varying degrees of trust in those sources. According to Pew Research Center's Social Media Fact Sheet, the greatest variation in social media consumption is visible across age (Pew Research Center. Gender, race, education, and community seem to cause little variation in social media use, especially relative to age. Since I expect social media to be a major determinant of public perceptions of the healthcare industry, I also expect these perceptions to vary across age brackets.

In conclusion, some of the main determinants of public perceptions of the healthcare industry are social media platforms, news media, and anecdotes from family and friends. These encompass a society's culture (its ways of expressing and experiencing creativity or the set of values, beliefs, and meanings of the members of a group). These alter how the healthcare industry is represented. However, these do not fully explain the trust in the institution. Institutional performance provides an objective reason to trust the institution, and this reason may override negative perceptions and instill trust in the institution. Nevertheless, perceptions of the healthcare industry will play a critical role in explaining trust in healthcare institutions. Of particular importance is the connection made by Friedell, et al., between low levels of literacy and the preferred source of

health information. Since Pakistan has low levels of literacy, one may suspect that public perceptions of healthcare are significantly informed by anecdotes from family and friends.

The Relationship between Trust and Healthcare

The above sections have hinted – explicitly and implicitly – at the intimate connection between healthcare and trust. Institutional trust is commonly understood as an important precondition for positive institutional performance. This performance, in turn, reinforces the trust people have in the institution. Instantiating this general observation, the performance of healthcare institutions is tied to peoples' trust in these institutions. Additionally, it seems that it is in virtue of interpersonal trust between healthcare personnel and people that these feedback loop exists. Trust in the institution's personnel culminates into trust in the institution. Simultaneously, interpersonal trust forms the grounds for initial bouts of positive institutional performance. This conceptualization yields two variables and three agents of interest in this section: interpersonal (micro-level) trust and institutional (macro-level) trust are the variables, and patients, healthcare providers, and healthcare institutions are the agents.

An intuitive starting point for the analysis of trust and healthcare is in the typical healthcare interaction (i.e., one between a patient and doctor). The patient bears a degree of risk in their interaction with the doctor. Specifically, the patient risks their health, as there is a chance that the doctor cannot cure them (and perhaps another doctor could have done so). This aspect of trust is forced, as patients rely on others to specialize in healthcare and develop institutions for its delivery (Gilson, 2003). Additionally, this risk and uncertainty is preserved to some degree in virtually all patient-doctor interactions. Consequently, one can say that trust is a necessary feature of healthcare (until healthcare delivery has certain outcomes) (Möllering, 2006).

First and foremost, the patient entrusts the doctor and institution with the task of curing their ailment. In other words, the patient relies on the institution and doctor to competently perform their task (i.e., curing) *without* indubitable reasons (Barbalet, 2006) to believe the actors will competently perform their task. Yet, trust in a healthcare context is more complex than this, as it is tied up with the doctor's ability to competently perform their task. For instance, before prescribing medication, doctors need additional information about their patients to ensure that their patients are not harmed. Consequently, patients must entrust doctors with their information (Rogers, 2002), relying on their discretion. However, this information is held by the institution, suggesting that interpersonal trust alone is not sufficient for ideal healthcare delivery.

The connection between institutional and interpersonal trust in healthcare contexts has been understood in different ways. Some researchers study the two constructs independently, while others focus on the interaction between the two, preferring to study the two together (Calnan and Rowe, 2006). Additionally, researchers are not in agreement over what trust in a healthcare context refers to. For some, it refers to an agent's appraisal of another agent's trustworthiness (Treloar and Rance, 2014). Others move away from the individual and interpret trust as a property of normative contexts and processes (Douglass and Calnan, 2016). Additionally, some authors have found other institutions influencing trust in healthcare providers and institutions as well. For instance, changes to regulations regarding healthcare or vested interests pushing a profit-based operating models on hospitals alter beliefs about healthcare institutions and professionals (Wilk and Platt, 2016; Tofan, et al., 2012).

The methodological approach of this paper is in harmony with the latter approach, wherein institutional and interpersonal trust are seen as intertwined and, therefore, examined together. This paper's conception of trust accords with both of the aforementioned conceptions. It accords

with the former due to its prioritization of the individual in the development of trust. As discussed above, interpersonal trust forms the foundation for the broader institutional trust and positive institutional performance. It accords with the latter due to the recognition that healthcare institutions change and provide feedback that alters an agent's beliefs and perceptions.

It is important to note that the most commonly studied relationship in a healthcare context is one where the patient entrusts the doctor. Therefore, the patient is vulnerable. This paper will contribute to this area of the literature. However, the role of the doctor as the trusting agent is receiving increased attention in the literature. The literature focuses on when doctors avoid trusting the patient (such as to avoid vulnerability or because of past experiences) (Hall, et al., 2001), whether doctors ought to trust patients (Rogers, 2002), etc. Since interpersonal trust is reciprocal, this is an important aspect of studies on interpersonal trust in healthcare contexts. However, I deem it beyond the scope of this paper, as it will add further complexity to what is already a systems analysis.

2.2 Theoretical Framework

This study's object of analysis is trust, so a definition and discussion are warranted. It will be useful to define trust in terms of its (necessary) parts. The first aspect of trust is that it as an attitude of reliance. This attitude is characterized by one depending on another person or thing to achieve some goal. For example, I am relying on my friend to take me to school. Alternatively, I rely on the stove to cook my food. The latter example expresses why characterizing trust as only an attitude of reliance is an underdetermined or insufficient characterization. We typically use the word 'trust' to describe relationships that agents have with other agents. I may rely on stove, but it would be odd to say I trust it. In contrast, I can trust a friend, a person, a pet, et al.

The second aspect of trust is that it requires the trustor to hold a justified belief in the consistency of the trustee's nature. This means that the trustor must believe, with reason, that the trustee is and will remain willing and able to do the task they are entrusted with. I have added this to the definition to explain why people trust others despite the risks associated with trusting. This aspect can be reformulated as a trustor's justified belief that the risks of them trusting will not actualize. If I trust someone, it is reasonable to presume that I believe this person will not violate my trust. For instance, it would be odd for me to entrust an heirloom with someone whom I believe will run away with it as soon as I hand it to them. Rather, I would trust them if I had a reason to believe that they will not run away with my heirloom. In other words, me trusting this person requires me to have a justified belief that they will remain willing and able to do what I have asked them to (i.e., keep my heirloom safe).

The third and final aspect of trust is that this relationship must come with some degree of risk, such as the possibility of betrayal (Baier, 1986). These risks have to be of a certain degree to distinguish trust from mere reliance. Consider my reliance on my friend and stove. If my friend violates my trust, I will feel disappointed and betrayed (such as if I asked him to keep an heirloom safe, and he pawned it off). In contrast, if my stove fails to light, so I cannot cook, it would be odd to say I feel betrayed. Betrayal is one of those risks that distinguishes trust from mere reliance. Beyond having these risks, the trustor must be willing to bear these risks for them to trust the trustee.

Consequently, trust is firstly an attitude of reliance towards another agent. Secondly, it requires the trustor to believe, with reason, that the trustee will not violate their trust. Lastly, trust is always accompanied by risks, such as the risk of betrayal, and the trustor must be willing to bear these risks before it can authentically be said that "the trustor trusts the trustee."

Trust is far more ubiquitous than is usually recognized. In fact, it is so common that many of us typically do it instinctually. Consider the knowledge we gain from our teachers or textbooks that we proceed to apply in our lives. All these applications presume that our teachers and textbooks were expressing something honest. In other words, we trusted the information our teachers and textbooks give. For example, when our parents tell us eating, say, broccoli is healthy, we presume they are being honest. Of course, we can confirm their claims using the internet, but this is not always possible. Suppose a history teacher tells us about an arcane historical fact about their specialty. In this situation, it would be very difficult for us to confirm their claim, and yet, we trust them. The point I am expressing here is that trust underlies virtually every facet of our lives. If we stopped trusting, our lives would be radically different (the number of things we can do would significantly be circumscribed).

Healthcare contexts are just like the situations mentioned above. Patients lack the expertise to safely self-administer effective interventions. However, their health is not concerned with their lack of expertise and can worsen. Consequently, patients seek out medical experts (i.e., doctors, et al.). These experts are provided by healthcare institutions. Due to their lack of expertise, patients are forced to trust these healthcare institutions and agents with their health. The agents and institutions, in turn, act to remedy the maladies the patients are experiencing.

Suppose the patients doubt the doctors. In this situation, the patient will not be content with any number of recommendations from doctors, as this may not meet their standards for what qualifies as trustworthy knowledge. They may, for example, wish to conduct experiments themselves to test the efficacy of the medicine. However, this is difficult, if not impossible, for obvious reasons. One can point to numerous facts, such as the economic success of healthcare institutions or the increasing length of the human lifespan, that show that trust is at play here. If

trust were not, none of these facts would actually be the case. For instance, if no one trusted their healthcare providers (and assuming testing the medicine is practically impossible), no one would ever take medicines, and so the human lifespan would not significantly change.

The importance of trust is apparent from the above discussion, but the extent of the literature review also highlights its academic relevance. Within academia, trust is studied both as a cause and effect of other phenomena. In the above situations, trust is an indirect cause of the lengthening of the human lifespan. The most immediate cause may appear to be the treatment, but this is not the case. Rather, it is the consumption of and exposure to treatments that lengthens the human lifespan, and trust is a necessary condition for this consumption and exposure. Besides this, another area in which the effect of trust is apparent is in economic transactions. All contracts are founded on the belief that the contracted parties will not violate the terms of the contract. This belief can reasonably be termed trust. For instance, when one purchases a product, they trust that the seller will not tamper with the product, is not deceiving them, etc.

In contrast, a separate strand of the literature on trust seeks explain what causes trust to occur, disappear, etc. Kim's model of public trust falls under this strand. This model provides five variables (discussed later) that seek to explain the perceived trustworthiness of an institution. Trustworthiness refers to what degree an agent warrants or deserves trust. People will be more willing to trust an institution that they perceive as trustworthy as opposed to one that they do not perceive as trustworthy. Here, trust is an effect of perceived trustworthiness by virtue of the definition of trustworthiness. Trustworthiness is an effect of the five variables proposed by Kim.

Kim's model is one of many institutional theories of trust. These theories propose that trust in institutions can be explained by deferring to the institution's qualities, such as how honestly and

competently they perform their duties. Alternative theories of trust attempt to explain trust by deferring to culture, demographics, or perceptions of trustworthiness (though this may be reducible to the previous three variables; social media, for instance, is an aspect of our culture that influences our perceptions of trustworthiness). Cultural theories, such as those of Baniamin, et al. (Baniamin, et al., 2019) and Jamil, et al. (Jamil, et al., 2016), explain trust as a result of a people's disposition to trust, and this disposition is cultivated by their socialization and enculturation processes. Demography theories cite characteristics of populations, such as gender, age, class, etc., as significant explanatory variables *vis-à-vis* trust.

Additionally, readers should keep in mind that there are different kinds of trust. The most common distinction is between interpersonal and institutional trust. Interpersonal trust is trust in other persons, while institutional trust is trust in institutions. Institutions are goal-oriented complexes of social roles and relations with regularized ways of operating or behaving. Put more succinctly, they are sets of rules. Some researchers, such as Spadaro, et al. (Spadaro, et al., 2020), argue that institutional trust enhances interpersonal trust and is, in some cases, responsible for interpersonal trust. Here, institutional trust is the independent variable and interpersonal trust is the dependent variable. In contrast, researchers like Baek and Jung (Baek and Jung, 2015) make a case for interpersonal trust enhancing institutional trust, reversing the above-mentioned mechanism.

One may be inclined to level the claim of reverse causality at studies of the relationship between interpersonal and institutional trust. This inclination is not entirely misplaced. One way of interpreting this literary contradiction is to posit the existence of a feedback loop between interpersonal and institutional trust. The origin of trust can be explained via the observation that agents can exist without institutions (at least initially), but institutions require agents to be

instantiated. Consequently, agents are necessary for institutions (and institutions are not necessary for agents at the outset). Therefore, trust begins as interpersonal trust. As groups of agents begin to form rules for their behaviors and instantiate institutions, interpersonal trust is generalized to the institution. At this point, institutional trust is not reducible to interpersonal trust (though the former does originate in the latter), creating a feedback loop between the two kinds of trusts.

This study's theoretical framework is based on Kim's model of public trust. Consequently, a detailed discussion of his model and why its transposition onto healthcare settings is a valid step is warranted. As stated in the literature review, Kim's point of departure from other attempts to conceptualize trust is in recognizing its 'multi-faceted character'. This character refers to three dimensions of trust: cognitive, behavioral, and affective.

Cognitive Dimension

The cognitive dimension of trust refers to one's conscious decision of trusting another. In every instance of trust, there are at least two agents: the trustor and the trustee. The trustor is the one who places their trust in another (i.e., the trustee). In a social context, the trustor grants the trustee discretion to act in the trustor's best interest. In a healthcare context, the patient typically grants their physician authority to act in the patient's best interest without fully explaining why a given decision is the best. Suppose a patient tells their doctor that they are experiencing headaches. In the typical healthcare encounter, the doctor will recommend a medicine without fully detailing how they arrived at that decision and the patient will take the medicine. This absence of a need for a detailed explanation is a consequence of the patient's trust in the doctor.

Behavioral Dimension

The behavioral dimension of trust refers to actions that indicate the presence of a trust relationship. This dimension is important because observable behaviors are typically what one evaluates before deciding to trust or distrust or to assess the quality of a trust relationship. Suppose that in the above scenario, the patient repeatedly states that they trust the doctor but also constantly hounds their physician to explain their decision. If this occurs, a third person may reasonably conclude that the patient does not trust their physician, contrary to the patient's claims. The behavioral dimension makes more sense if one considers that holding a belief (such as that of the form 'I trust X') disposes people to behave in certain ways. For example, you behave differently depending on your attitude towards a certain person (e.g., liking or disliking).

Affective Dimension

Lastly, the affective dimension of trust refers to trust's not entirely rational basis and the emotional attachments and attitudes that form as a consequence of a trust relationship. As discussed above, trusting disposes people to behave in particular ways. These behavioral dispositions are not only a direct consequence of trust: they are also indirectly a result of the emotional attitudes one develops due to trusting. Suppose that the medicine prescribed in the above scenario worsens the patient's headaches and the patient perceives this as a betrayal of their trust. When the patient confronts the doctor, the doctor defends their decision by saying that people respond differently to the medicine and the medicine is usually effective. Rationally speaking, the patient should ask for another medicine. However, in reality, a patient may view the doctor's expertise with skepticism. In this situation, this skepticism is not rationally warranted, as there is always a chance of a person not responding well to a medicine.

Consequently, one must ground this skepticism in something other than the person's rationality. This 'something' would be the affective or emotional component of the person's trust.

Conceiving of trust along these three dimensions is generally in line with my proposed definition of trust in the literature review. The first aspect of that definition posits that trust is partly an attitude of reliance on another. This captures the affective and cognitive components of trust, as it identifies trust with a particular mental state (composed of rational and emotional components). Additionally, it implies certain behavioral dispositions, as the trustor needs to express their reliance on the trustee. The second aspect posits that trust involves holding a justified belief in the consistency of other peoples' natures (i.e., that they will continue to respect your trust). This captures the cognitive dimension more explicitly, as it posits a condition that needs to be satisfied before one makes the conscious decision of trusting. The final aspect of this definition is a willingness to accept some risk and vulnerability. According to Kim, this acceptance is a result of an emotional attachment to the trustee, but it also indicates a behavioral disposition (trust leads to behaviors that neither are purely rational nor require certainty).

One issue with this definition is it excludes situations in which trust is forced. These situations typically occur when a person relies on another for something X and has no alternative sources of acquiring X. For example, in a country with a wanting welfare state, a poor person can only rely on public healthcare to treat some ailment (assuming private healthcare is too expensive). If this person lives in a remote area, their access to healthcare may likely be limited to one clinic or even one doctor. In these instances, one's reliance is forced (they only have one choice, so their choice is forced). However, I do not believe this issue is necessarily a problem with this definition, as if reliance is forced, then one cannot claim that one is speaking about trust without controversy.

Kim describes five variables that measure an institution's trustworthiness: credible commitment, benevolence, honesty, competency, and fairness. It follows that if Kim's variables are valid measures of trustworthiness and trustworthiness refers to the probability of being trusted, then high scores on these variables should be positively correlated with high levels of trust. This encapsulates the first part of this study (the first five hypotheses and independent variables). I will create questionnaire items that capture these variables and additional items to capture trust as the sample understands it. This is to establish construct validity (i.e., that Kim's variables do in fact measure trust). This will be done through a multivariable regression analysis.

Credible Commitment

The first variable is credible commitment, which is further broken down into two variables: encapsulated interest and consistency. Encapsulated interest refers to the degree to which an institution's interests encapsulate the trustee's interests. Consider a firm that is operating to maximize its profits. If the firm is maximizing its profits, it will likely attempt to either get its laborers to work harder or longer days or push their wages down. In effect, the firm will attempt to reduce its cost of production. Here, the firm's interest is profit, and this interest does not encapsulate the interests of its workers, which could be improved living standards for safer working conditions. Consequently, the workers would be less likely to trust the firm, as their goals are in opposition to each other. Consistency refers to the regularity or predictability of a trustor's behavior based on their words. For instance, if a hospital regularly claims to help people and, in fact, *does* help people, the hospital's behavior is consistent with their claims. The more consistent a trustor's behavior and the more encapsulating the trustor's interests, the greater their perceived trustworthiness. This variable forms the first hypothesis.

H1: Credible commitment (encapsulated interest and consistency of behavior) will be positively related to institutional trust

Benevolence

The second variable is benevolence, which refers to the genuine altruism and concern the trustor has for the trustee. A benevolent trustor is one that will assist and help the trustee even if doing so does not benefit the trustor. Public institutions that are set up to provide necessary services and goods (such as healthcare and food) without a profit-motive are often perceived as benevolent. This variable forms the second hypothesis.

H2: Benevolence will be positively related to institutional trust

Honesty

The third variable is honesty, which refers to the degree to which the trustor discloses all relevant facts to the trustee. This variable is fairly self-explanatory, but, for the sake of consistency, the mechanism will be spelt out here. Consider a physician and their patient. The patient will be less likely to perceive their physician as trustworthy if their physician dodges some questions or appears to be pressuring the patient into using some medication. In these situations, the patient will feel that the physician is either lying or not disclosing the entire truth of the matter. This variable forms the third hypothesis. It is also about more openness, being frank, integrity, truthfulness, sincerity.

H3: Honesty will be positively related to institutional trust

Competency

The fourth variable is competency, which refers to the trustor's ability to meet the trustee's expectations. As mentioned in my definition of trust in the literature review, a justified belief in the trustor's capability to perform the entrusted task is a necessary part of a trust relationship. For example, you are very unlikely to entrust a person to perform surgery on you if you know that they are not a surgeon (and are wholly incapable of performing the surgery). This variable forms the fourth hypothesis. Competency is based on professionalism, that is acting according to the code of conduct and professional norms, ethics, and rules.

H4: Competency will be positively related to institutional trust.

Fairness

The last variable is fairness, which refers to the trustor's disposition to recognize the spirit of and commit to the trust relationship and to not let their personal biases interfere with the entrusted task. For example, a patient is less likely to trust a doctor if they believe that the quality of the doctor's services will be informed by the patient's political beliefs. The patient is more likely to perceive the doctor as trustworthy if the doctor treats the patient not as a political opponent, but as a patient. This variable forms the fifth hypothesis. This is about impartiality, treating all equally.

H5: Fairness will be positively related to institutional trust.

Besides the trustworthiness measure, there are two measures of trust: one measures trust in the hospital's services (institutional) and the other measures trust in the hospital's personnel (interpersonal). It is presumed, as explained in the literature review, that institutional trust begins as interpersonal trust and is then generalized to the entire institution. Over time, people will begin to generalize their trust in specific service-providers to the institution the provides these service-providers. However, once institutional trust comes into the picture, it is not reducible to interpersonal trust, as service-quality becomes an additional measure of the institution's trustworthiness. Service-quality acts as an objective measure of how trustworthy the institution is (i.e., how much trust the institution warrants). In essence, if an institution provides high-quality services, people are more likely to trust it than another similar institution with lower-quality services. Additionally, service quality is not reducible to interpersonal trust. For instance, if a doctor provides low-quality services, it is unreasonable to presume that this will affect how willing the patient is to trust a nurse *directly*. Rather, the doctor's services will affect the patient's trust in the institution, and this trust then generalizes to other personnel, such as nurses. An additional presupposition here is that people will be more willing to trust institutions that they find trustworthy.

These two measures are used to form two more hypotheses to help support my understanding of how the above variables fit into my research on trust (as stated in the literature review) and answer some of the research questions (as stated in chapter 1):

H6: An average of Kim's measures of trustworthiness (the scores on each variable will be summed and divided by 5) will be positively related with measures of institutional quality (such as service and infrastructure quality, which I am positing as proxies for institutional performance).

H7: Institutional trustworthiness will be positively correlated with measures of interpersonal trust.

A brief discussion of these two hypotheses is warranted. The literature review above discussed various theories of institutional trust that credit the institution with the bulk of developing trust relationships. For instance, Rus and Iglic (2005) found that institutional trust underpins most trusting relationships in institutional strong environments. If these and other findings are to be believed, one can reasonably conclude how trustworthy an institution is likely to be from its characteristics. There is clear interplay here between Kim's variables and institutional theories of trust. I believe that Kim's variables represent simpler attitudes. These are attitudes people have towards these institutional characteristics, and it is on the basis of these simpler attitudes that people determine how trustworthy an institution is. The relationship goes as follows: people form atomic attitudes (benevolence, honesty, etc.) about an institution by observing the institution's characteristics (service quality, infrastructural quality, etc.). Based on these attitudes, they form the more complex attitude of trust.

Hypothesis 7 is not directly connected to Kim's variables. Rather, it is directly tied to the concept of trust. In the literature review, there seemed to be an evident chicken-egg situation regarding the relationship between institutional and interpersonal trust. It was not clear which was causally prior. In some contexts, interpersonal trust seems primitive (Spadaro, et al., 2020), whereas in others, institutional trust seemed primitive (Baek and Jung, 2015). My interpretation of these results is that interpersonal trust precedes institutional trust, but once institutional trust is present, it is not longer reducible to interpersonal trust. Instead, institutional and interpersonal trust largely reinforce each other in a feedback loop (at least in healthcare contexts). Hypothesis 7

merely examines whether this correlation between the two kinds of trust is significant. If it is, then it lends credence to my interpretation.

For the first five hypotheses, the willingness to trust the hospital (i.e., the hospital's trustworthiness) is the dependent variable. For the sixth hypothesis, the dependent variable is the average of Kim's measures of trustworthiness. The seventh hypothesis is a correlation.

Note: Statements 2 to 7 were prefaced by the general question "to what extent do you agree with the following statements". Statements 8 to 10 were prefaced by the general question "Rate the hospital on the following". Statements 11 to 13 were prefaced by the general question "How trustworthy do you think the following personnel of the hospital are?".

Table 2.1: Hypotheses

Hypotheses	Measured by
H1: Credible commitment will be positively related with trustworthiness.	S1: "How willing are you to trust this hospital with your health?" S2: "Your long-term health is in their interest." S3: "The quality of their services is consistent (i.e., not volatile)."
H2: Benevolence will be positively related with trustworthiness.	S4: "They are interested in helping people without expecting anything in return."
H3: Honesty will be positively related with trustworthiness.	S5: "Their personnel are honest, even if it is not in their best interest."
H4: Competency will be positively related with trustworthiness.	S6: "The doctors and other staff have the skills and competency to address your health-related problems."
H5: Fairness will be positively related with trustworthiness.	S7: "Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment."

H6: An average of Kim's measures of trustworthiness will be positively related with measures of institutional quality.	S8-10: "Treatment Quality", "Service Quality (other than treatment)", and "Condition of Hospital".
H7: Trustworthiness will be positively related with measures of interpersonal trust.	S11-13: "Doctors", "Nurses", and "Other Employees".

Chapter 3: Methodology

This study is based on a quantitative method. The first reason for pursuing a quantitative analysis stems from this paper's motivation: seeing if Kim's model of public trust is applicable to healthcare institutions. The intention here is to generalize this model to another context, and the generalizability of a model is related to the sample size upon which it is tested. A qualitative study enables a richer explanation of the notion of trust, but the purpose of this study is not to explore what is and is not part of a useful concept of trust. I have taken for granted that Kim has provided a general and useful concept of trust. The concern now is to see if this concept is useful and relevant for making sense of trust in a healthcare context. Consequently, I am concerned with getting an adequate sample for this study, as this will provide a representative answer to the question of whether Kim's model can be generalized to healthcare contexts.

I would like to note that many studies on trust (including in healthcare contexts) are quantitative. Virtually all the quantitative studies discussed in the literature review begin with a definition of trust. The researchers then construct a model to operationalize that definition, and they then proceed to test the model. The most commonly used instruments are questionnaire surveys. Some researchers construct their own questionnaires, which affords them the ability to select their sample (the samples are random, but the researchers can set limits within which a random sample is selected). Other researchers rely on surveys conducted by others such as NGOs, IGOs, etc., which are often available online such as the World Values Survey (WVS) or Afrobarometer. For this study, I have collected quantitative data by using questionnaire and used many of the questions that are used in other surveys, which enhances the validity and reliability of data and measurement instruments. The reason for collecting my own data is, first, to get relevant data

that are necessary to highlight and analyze the research problem chosen for this study. Second, it allows me to learn about methodology and how to conduct a questionnaire survey. This learning process in methodology would help to conduct survey research in future.

I do not believe the surplus of quantitative studies on trust diminishes the importance of this paper because the quantitative methodology seems well-suited to examining the applicability of a model. In contrast, a qualitative examination of trust in healthcare contexts may be warranted if Kim's model does not fit the healthcare context well. This implies that there is something missing in the mechanism put forth by the model (perhaps something specific to healthcare contexts). For instance, it could be that Kim's variables are specific to citizen-government relations because those relations are not explicitly monetary and much more lasting than patient-hospital relations.

The second reason for adopting a quantitative methodology is that it enables others to further test the applicability of Kim's model by attempting to replicate my results. Quantitative studies make it easy to replicate results (such as using the same instruments), as well as identifying where the problems may lie in the testing process. It should be noted at the outset that this paper represents a first step in testing Kim's public trust model (a detailed discussion on Kim's trust concepts is made in the theoretical chapter). It is not, by any means, intended to settle the question of applicability. Regardless of whether the results support or oppose the application of the model, future studies should attempt to replicate the results and critique the used instruments and testing procedures. A quantitative study is conducive to not only present research, but also future research.

Thirdly, this methodological approach is motivated by practical limitations. This is not a significant determinant, as the issue of methodology was settled before this occurred to me. However, conducting on-site research at healthcare institutions is risky due to the current COVID-19 pandemic (cases of infections were rising and more stringent standard operating procedures were put in place during the writing of this paper). The approach adopted in this paper does not require live interactions or direct participant observation to generate useful information.

In summation, the quantitative approach is motivated by theoretical and practical concerns. The main theoretical concern is to test the applicability of Kim's model of trust in healthcare contexts and not to critique or evaluate the presented concept of trust. The practical concern is the current risk associated with on-site research and the limited timeframe.

Units of Analysis and Observation

The goal of this study is to generate a meaningful claim about the hospitals in Karachi. Consequently, the unit of analysis is hospitals in Karachi, the largest city in Pakistan. The units of observation are the Aga Khan University Hospital and the Jinnah Postgraduate Medical College.

The units of analysis in this study are two hospitals in Karachi because the goal of this study is to be able to say something about what features of hospitals inform peoples' perceptions of their trustworthiness. One may contest that the unit of analysis should be people in Karachi and not hospitals. After all, there are no objective measures of a hospital's rank on each of the characteristics of trustworthiness defined by Kim. The reason for this is the defined characteristics are inherently subjective. For instance, fairness lacks a definition that is

universally accepted. Consequently, there is no way to objectively rank a hospital's fairness. However, we can rely on testimonies from different people about how trustworthy they find two hospitals. The result will enable us to compare the two hospitals, but this result is not making a claim about the hospital; rather, it is making a claim about peoples' perceptions of the hospitals.

While I agree with what is said above, I am treating the properties of a hospital and peoples' perceptions of said properties as the same thing. After all, it is the hospital that is competent, benevolent, etc., not peoples' perceptions. The above criticism admits that an objective measure of a hospital's trustworthiness is not possible. However, the concern here is not to say something about the features of a hospital that inform peoples' perceptions of trustworthiness, as if these features existed independent of the perceiver. Rather, the goal is to explain what aspects of their perceptions of hospitals do people focus on when attempting to establish the trustworthiness of a hospital.

Jinnah Postgraduate Medical College began as the Medical Corps Hospital in 1930 (JPMC). It was then renamed the British General Hospital in 1942. In 1947, Muhammad Ali Jinnah lent his name to the institution, establishing the Jinnah Central Hospital, on the condition that it operated as a public hospital. It was named Jinnah Postgraduate Medical College in 1959 and continues to operate as a public hospital under the control of the federal government. In the previous financial year (2020-21), the Federal Government allocated Rs. 3.877 billion for the hospital (Ali, 2020).

Aga Khan University Hospital is a privately run and not-for-profit institution that was established in 1985. The hospital has branches in Karachi and Nairobi. In 2017, the had annual revenues of $369 million and 1,203 beds on average in its hospitals (AKUH, 2017).

The choice of the hospitals is predominantly random. These are two of the most frequented hospitals in Karachi and both will be treated as a singular institution providing medical services. However, regarding their character, one is privately administered, and the other is publicly administered. Consequently, the people who frequent the hospitals are likely to be of different classes. While the purpose of this study is not to test the effects of class on perceptions of hospitals, I do believe that class is a demographic variable that can influence perceptions of trustworthiness. In any case, this conjecture is supplementary and will not form a portion of the study.

I am focusing on respondents in Karachi because they will have the most informed opinions on the hospitals. Since the hospitals being studied are in Karachi, people in Karachi are likely to have the most interactions with the hospitals. Additionally, the politics around the hospitals (such as any controversy) will be something people in Karachi will be more cognizant of than people in other cities. Consequently, people in Karachi have access to the greatest amount of information about and, therefore, the most informed opinions on the hospitals.

Data Collection

The sole method of data collection is a questionnaire circulated online (due to the difficulties posed by COVID-19) among current and prior residents of Karachi. The questionnaire consists of three sections: biographical information, Jinnah Postgraduate Medical College, and Aga Khan University Hospital. The biographical section consists of questions regarding age, gender, education, and profession. The questionnaire was developed on Google Forms and circulated among friends, family, houseworkers, et al. Additionally, I have requested the people who have filled the form to circulate it among their social groups.

The respondents are not randomly selected as this was not possible given the time and resources available. Therefore, the best option was to circulate the questionnaire based on snowball technique. This method involves giving the questionnaire to people in one's social groups and then asking those people to circulate it among their social groups. A sample collected in this way is not random because not everyone has the same chance of being chosen. For instance, if my social group consists of people from the same income category, then people in a much higher or lower income bracket have a lower chance of being selected for the sample. A similar argument can be made across other dimensions of identity, such as gender and race. Consequently, there is not enough evidence to generalize the results to residents of Karachi who are demographically distinct from the respondents.

Similar questions were administered to map people's perceptions on these two hospitals. Statement 1 (How willing are you to trust this hospital with your health?) inquires into how willing the respondent is to trust the hospital with their health. In other words, how trustworthy do they think the hospital is.

Table 3.1:

Statement (10-point scale)
1. How willing are you to trust this hospital with your health?

In the following, statements 2 to 7 measure the characteristics of trustworthiness identified by Kim, with statements 2 and 3 measuring encapsulated interest and consistency of behavior.

Table 3.2: To what extent do you agree with the following statements with regards to JPMC/AKUH:

Statement (10-point scale)
2. Your long-term health is in their interest.
3. Their service-quality is consistent (i.e., not volatile).
4. They are interested in helping people without expecting anything in return.
5. Their personnel are honest, even if it is not in their interest.
6. The doctors and other staff have the skills and competency to address your health-related problems.
7. Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment.

Statements 8 to 10 measure peoples' perceptions of the quality of the hospital's treatments, non-treatment services, and infrastructure. These measures are an alternative measure of trust centered around the institutional approach to trust, wherein peoples' trust in an institution are directly related to that institution's performance. The purpose of this section is to provide a complete mechanism of how Kim's measures connect to trust in an institution. Essentially, I expect the institution that has higher quality services and infrastructure to rank higher on Kim's characteristics of trustworthiness.

Table 3.3: Rate the following about JPMC/AKUH:

Statement (10-point scale)
8. Treatment Quality
9. Service Quality (other than treatment)
10. Condition of Hospital

Lastly, statements 11 to 13 measure the respondent's trust in the various personnel of the hospital. This is meant to connect with the first statement to provide a comprehensive mechanism by which this trust occurs. To see the full questionnaire, see appendix 3.

Table 3.4: How trustworthy do you think the following personnel of JPMC/AKUH are?

Statement (10-point scale)
11. Doctors
12. Nurses
13. Other Employees

Regarding the mechanism in question, the starting point is the claim that institutional trust is grounded in interpersonal trust (i.e., the former exists because of the latter). Once institutional trust is established, it is irreducible to interpersonal trust. Instead, the two kinds of trust reinforce each other, forming a feedback loop. This will be established by seeing if there is a correlation between statement 1 and statements 11 to 13 (the former measure institutional trust and the latter measure interpersonal trust).

From this, the next step is to see if a relationship exists between statement 1 and statements 8 to 10 (the latter measure the quality of the hospital's services and infrastructure). If there is, it provides some evidence of the existence of the relationship posited by the institutional theorists (though I am largely deferring to these theorists for proof of this relationship). This implies that

there is a connection between the objective features of the hospital and how much people trust them.

Lastly, I will examine the relationship between statement 1 and statements 2 to 7 (the latter measures Kim's dimensions of trust). If a positive relationship occurs, this bridges the gap between the objective attributes of the hospital and the trust that people have in them. These objective attributes influence peoples' perceptions of the hospital, and these perceptions form the foundations for their trust in the hospital.

Sample

As mentioned above, the questionnaire was circulated among friends, family, colleagues, and houseworkers. These respondents then circulated the questionnaire among their friends, family, colleagues, and houseworkers. The total sample consists of 41 people, all of whom are residents of Karachi (though some are not currently residing there due to work, studies, etc.). Each respondent provides two responses (one for JPMC and another for AKUH), resulting in a sample size of 82. The following descriptive statistics depict the different characteristics of the sample.

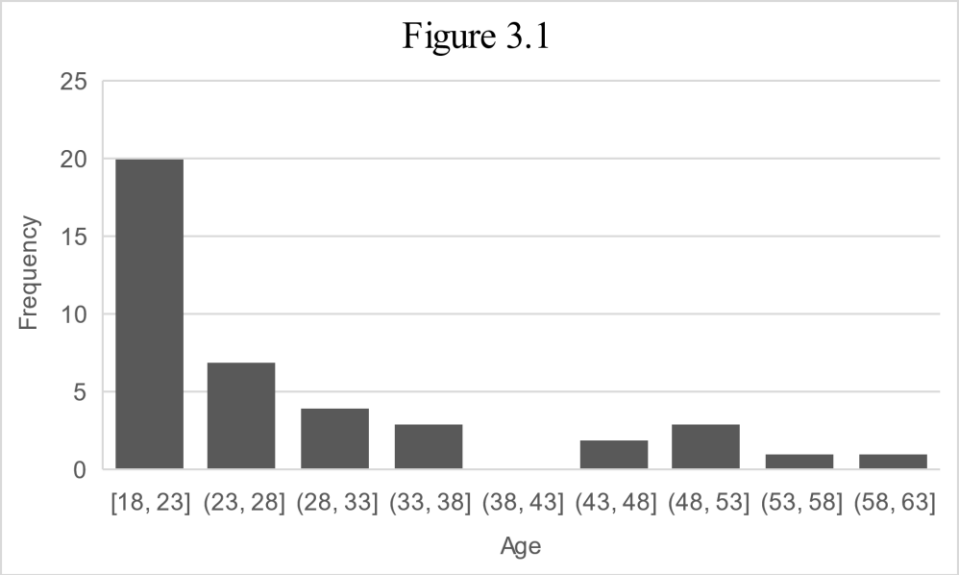


Figure 1 shows the number of respondents from various age ranges. As is apparent, most of the responses (almost half) came from young adults (ages between and inclusive of 18 and 23). This does raise concerns regarding the representativeness of the sample. As the sample was snowballed, I expected most responses to come from younger age groups, as they made up the majority of the people among whom I initially circulated the questionnaire.

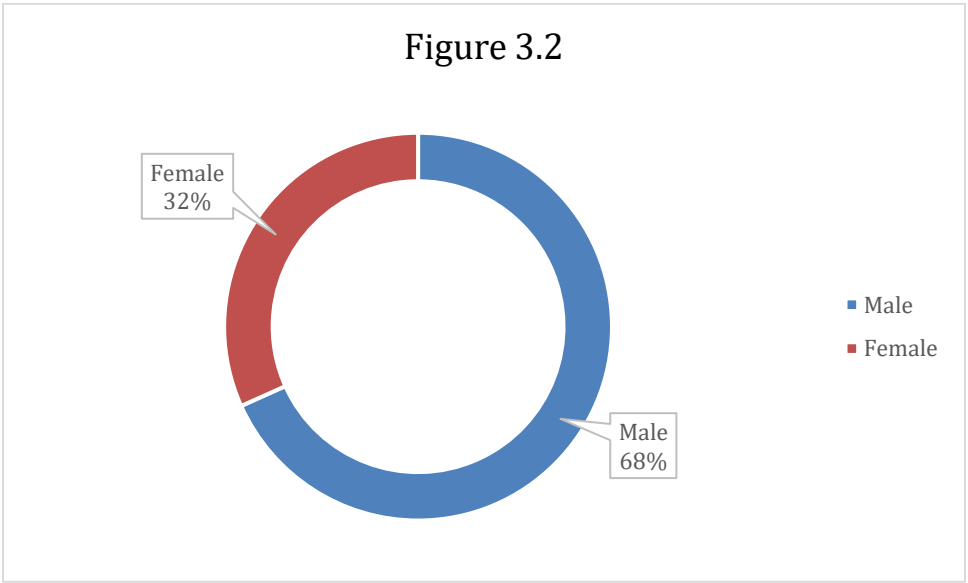


Figure 2 shows the distribution of the respondents' genders. Almost two thirds of the respondents were male, while the remaining one third was female.

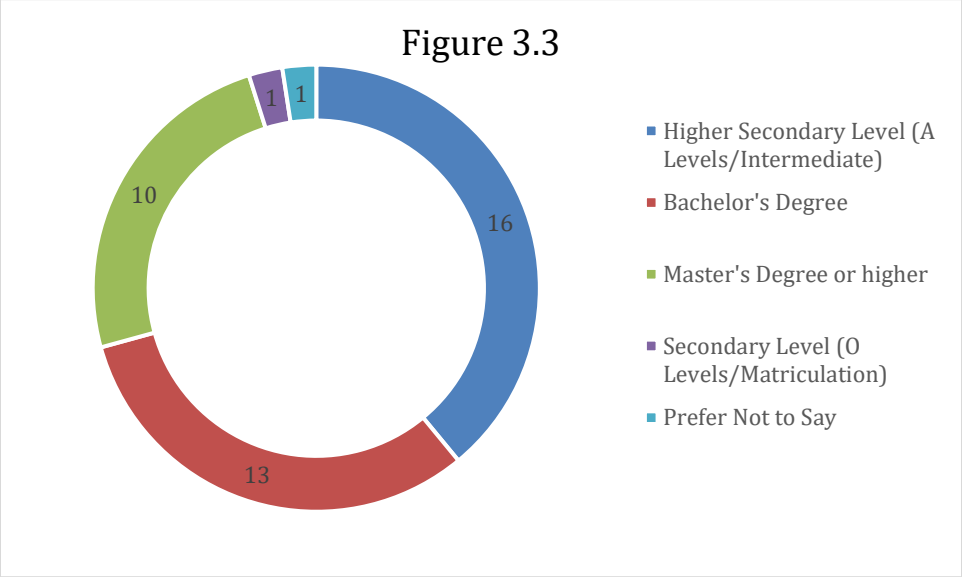
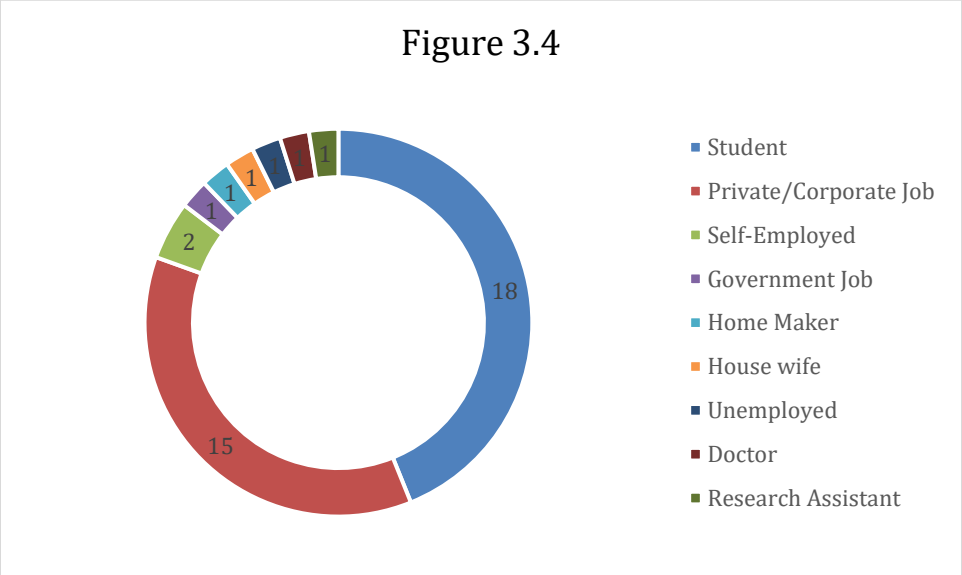


Figure 3.3 shows the distribution of the respondents' education levels. Almost all respondents had at least a high school education. Additionally, over half of the respondents had a university-level education.



Lastly, figure 3.4 shows the distribution of the respondents' occupations. Most respondents were either studying or working in the private/corporate sector. This is in line with the age distribution shown in figure 1, as people between the ages of 18 and 23 are typically either entering university, in university, or have recently graduated.

I think it would be better to present all these demographic variables in one table and drop the figures.

Validity and Reliability

I believe statements 2 to 7 have face validity, as they are statements mostly constructed out of the words used by Kim. Consequently, they seem to measure what I have claimed they measure. Additionally, the statements are very similar to how we would typically inquire about the measured concepts in regular conversation. Nevertheless, face validity is not enough to establish the validity of the results.

Statement
2. Your long-term health is in their interest.
3. Their service-quality is consistent (i.e., not volatile).
4. They are interested in helping people without expecting anything in return.
5. Their personnel are honest, even if it is not in their interest.
6. The doctors and other staff have the skills and competency to address your health-related problems.
7. Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment.

Construct validity will be established by correlating the variables measured in statements 2 to 7 with the variables measured in statements 8 to 10. As discussed in the literature review,

institutional performance and quality are two of the most researched variables on trust. The literature suggests that as these variables increase in presence, the amount of trust people have in institutions also increases. Consequently, the literature has established that there is a positive relationship between these variables and trust (measured by statement 1). If statements 2 to 7 do indeed measure trustworthiness (i.e., peoples' willingness to trust) then they should positively vary with statements 8 to 10.

Rate the following about JPMC/AKUH:

Statement
14. Treatment Quality
15. Service Quality (other than treatment)
16. Condition of Hospital

I am treating trust and trustworthiness as materially equivalent, where trustworthiness is my independent variable. One may critique this as a conceptual simplification. Trustworthiness and trust are, after all, not identical. However, while I grant that they are not identical, I do believe they are very closely connected: connected enough to treat them the same. Trust is an actualization of trustworthiness. Typically, the impediment to trusting is one's willingness to trust, not one's ability. In fact, insofar as one is socially able, they have the ability to trust anyone. What prevents us from trusting everyone is our willingness to trust others (i.e., our perceptions of their trustworthiness).

The presence of trust *necessarily* presupposes the presence of perceptions of trustworthiness (there is no trusting where one does not consider another trustworthy). Therefore, in measuring trust, statements 8 to 10 are also, by proxy, measuring perceptions of trustworthiness. Accordingly, I am treating a correlation between these statements and statements 2 to 7 as an indicator of construct validity.

An additional concern is that of reverse causality. That is, it could be that perceptions of trustworthiness affect my perceptions of how honest, etc., I find the institution. The concern here is, of course, in explaining how these perceptions then arise. It is easy to see that trustworthiness is not a basic concept, as it can be reduced to other concepts. Even if one does not think Kim's variables capture trustworthiness, one will grant that we must look at *something* to determine if a person is trustworthy or not. I think Kim's variables explain the initial perception of trustworthiness, as well as the reinforcement of trustworthiness through the behavioral consistency aspect of credible commitment.

An additional concern is that of internal validity. It could be that the measures identified by Kim are not basic (i.e., are not irreducible). One independent variable could explain the variation we see in other independent variables. My response is that I have not, while perusing the literature, encountered a theoretical explanation that accounts for this lack of internal validity. Consider the five variables: credible commitment, benevolence, honesty, competency, and fairness. Of these, the most closely connected seem to be benevolence, honesty, and fairness, as all three are typically seen as virtues.

The closeness between benevolence and honesty breaks down upon inspection. One can easily be benevolent without being honest (e.g., white lies). Similarly, one can be honest without being benevolent (e.g., clearly expressing their miserliness). The connection between fairness and honesty is also a weak assertion. I can be transparent about my lack of fairness. Similarly, I can distort a situation in order to make it easier to assert fairness.

The relationship between benevolence and fairness does not break down as easily. For many people, being fair implies, to some extent, being benevolent. However, these are theoretically

independent based on Kim's definitions. Benevolence refers to a person's genuine concern for others. Fairness refers to, *inter alia*, a person's ability to remove the influence of their biases and emotions on their performance of a task (in a sense, to treat people equally). Being benevolent may incite a physician to treat someone who cannot afford the treatment for free. However, being fair would require the physician to treat everyone for free or to not treat those who cannot afford the treatment (as this would be treating patients unequally). Consequently, in this situation, being benevolent can be at odds with being fair.

This is not a categorical assertion of the independence of these variables. I am making a theoretical point to show that these variables do not necessarily cause each other nor are they always concomitant. In a probability theory of causality, it would suffice to say that one of those variables causes another if the former changes the probability of the latter. I would like to say that these variables will covary due to the nature of the relationship between these variables and trustworthiness. When trustworthiness is ranked highly, these variables will also be ranked highly *together*. Therefore, there will likely be a correlation between the variables, but I do not think the relation will be significant enough to raise concerns of multicollinearity. I will check for multicollinearity using the variance inflation factor. I suspect that this correlation will become apparent after comparing the multivariable and simple linear regression models on each hospital.

Variables	Operationalization
Institutional Trustworthiness	S1: “How willing are you to trust this hospital with your health?”
Credible Commitment	S2: “Your long-term health is in their interest.” S3: “The quality of their services is consistent (i.e., not volatile).”
Benevolence	S4: “They are interested in helping people without expecting anything in return.”
Honesty	S5: “Their personnel are honest, even if it is not in their best interest.”
Competency	S6: “The doctors and other staff have the skills and competency to address your health-related problems.”
Fairness	S7: “Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment.”
Institutional Quality	S8-10: “Treatment Quality”, “Service Quality (other than treatment)”, and “Condition of Hospital”.
Interpersonal Trust	S11-13: “Doctors”, “Nurses”, and “Other Employees”.

Chapter 4: Results and Analysis

Before discussing my findings, I think a quick recap of the hypotheses is in order. The first five hypotheses state that the five aspects of trustworthiness identified by Kim will be positively correlated with a person's willingness to trust both hospitals for health care delivery services. Here, willingness to trust is an operationalization of institutional trust. Institutional trust is assumed to covary with institutional trustworthiness, which is the degree to which a person believes an institution warrants trust. The sixth hypothesis states that an average of the measures of institutional quality (typically associated with institutional theories of trust) will be positively correlated with an average of Kim's measures. These measures refer to treatment quality, service quality (other than treatment), and the condition of the hospital.

If the first six hypotheses are not rejected, then I can establish a mechanism connecting the objective features of hospitals (quality) to peoples' perceptions of their trustworthiness. Here, the objective features of a hospital cause more positive perceptions of the five aspects of trustworthiness identified by Kim. These positive perceptions produce a greater willingness to trust the hospital. This explains how the objective features of a hospital are related to peoples' willingness to trust the hospital.

This is important because objective features can be interpreted and perceived differently. For instance, high service quality is standardly interpreted as, *inter alia*, competency. However, high service quality, if accompanied by a supposedly inflated price, could be seen as somewhat exploitative, causing people to view the hospital as a profit-making rather than benevolent institution. Here, the hospital's objectively good services are consistent with competence and narrow self-interest. The problem is that these two attitudes will lead to different perceptions of

trustworthiness. Consequently, the relationship between objective features and trust requires an explanation of the factors that mediate this relationship. I believe Kim's identified variables are these mediating factors.

Finally, hypothesis seven is concerned with the correlation between institutional and interpersonal trust. While not directly related to the above mechanism, I have opted to examine this to explain the origin of institutional trust. As I see it, institutional trust cannot originate without interpersonal trust. Consequently, institutional trust is grounded in interpersonal trust. However, once institutional trust is established, it is not reducible to interpersonal trust. Instead, these two kinds of trust reinforce each other.

My analysis treated the data yielded from the different scales as continuous interval data. The justification is that each question asked some question regarding the degree of agreement, trustworthiness, etc. Consequently, each interval can be interpreted as being equidistant. This renders parametric testing valid for my questionnaire responses.

Univariate Analysis

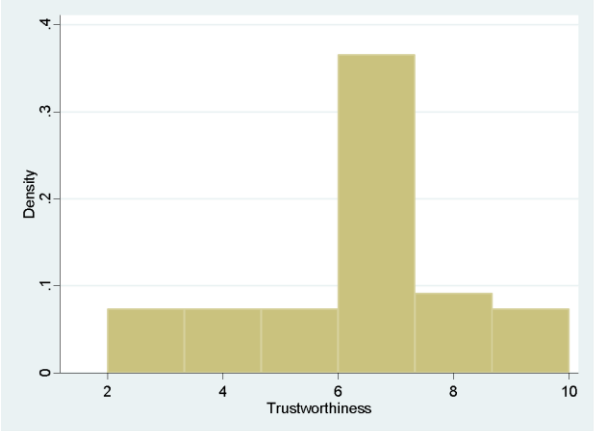


Figure 4.1: Frequency distribution of respondents' trustworthiness in JPMC

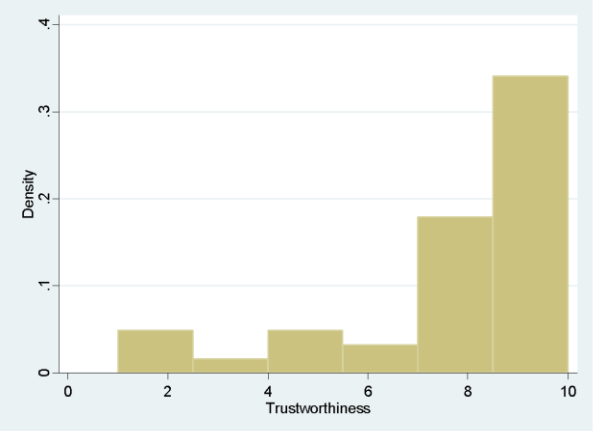


Figure 4.2: Frequency distribution of respondents' trustworthiness in AKUH

Figures 4.1 and 4.2 show the frequency distribution of the respondents' willingness to trust both hospitals. Trustworthiness for both hospitals is negatively skewed, with AKUH being more skewed than JPMC. This could be explained through a difference in the quality of services or reputation between the two hospitals or some other difference. Nevertheless, it should be noted that it seems, on average, that people are fairly too willing to trust hospitals with their health.

Table 4.1: Citizens' trust in hospitals (Percent distribution and Mean)

	Low % (0 to 3)	Medium % (4-6)	High % (7-10)
Trust in hospitals	8	21	53
Mean values/ SD	Mean = 7.012; SD = 0.256		
N	82		

Table 4.2: Averages and Standard Errors for Kim's Variables and Mean Index

Independent Variable	Mean	SD
Credible Commitment	6.945	0.231
Benevolence	5.805	0.312
Honesty	6.695	0.241
Competency	7.476	0.237
Fairness	4.695	0.275
N	82	

Tables 4.1 and 4.2 show that the average of some variables is very close to the average of trustworthiness, suggesting that there is a strong correlation there. However, the more interesting observations concern the variables that seem to substantially deviate from the index. Fairness, in particular, deviates from the mean trustworthiness, suggesting that it may not be a good predictor of peoples' willingness to trust these hospitals.

Additionally, benevolence seems to significantly deviate from the mean of trustworthiness. The deviation seems to primarily be caused by AKUH rather than JPMC. This could be due to the administrative differences between these two institutions. JPMC is a publicly run hospital and its name is historically grounded on the condition that it be "open to the public" (JPMC). Consequently, many people are likely to see it as an altruistic institution. In contrast, AKUH may be perceived as less altruistic, as it is a privately run organization. Some may perceive it as monetizing peoples' health or something to that effect.

Table 4.3: Average Trustworthiness between Historical Patients and Non-Patients

	JPMC	AKUH
Has Been a Patient	$\mu = 6.826$	$\mu = 8.394$
Never Been a Patient	$\mu = 5.444$	$\mu = 5.375$

Lastly, tables 4.1 and 4.3 seem to confirm that the trustworthiness is negatively skewed. The average willingness to trust is above the neutral score '5'. Moreover, peoples' willingness to trust AKUH is greater than their willingness to trust JPMC. This could be due to the greater competency of AKUH over JPMC. Consequently, people may have had better experiences with AKUH than JPMC. Table 4.3 highlights the trustworthiness differences between those who have and have not been patients of the two hospitals. Despite facing similar levels of trustworthiness from those who have never been patients of the hospitals, AKUH experiences a greater increase in its trustworthiness than JPMC after treating a patient.

Multivariate Analysis

Table 4.4: Simple Linear Regression of trust in hospitals and trustworthy variables. Method enter. Standardized beta coefficients.

Independent Variables	Model 1	Model 2	Model 3 Pooled data
Kim's Trustworthy Variables			
Credible Commitment	$\beta = 0.8504$, $P > \|t\| = 0.000$		
Benevolence	$\beta = 0.2353$, $P > \|t\| = 0.009$		
Honesty	$\beta = 0.4990$, $P > \|t\| = 0.000$		
Competency	$\beta = 0.7679$, $P > \|t\| = 0.000$		
Fairness	$\beta = 0.1941$, $P > \|t\| = 0.060$		
Demographic Variables			
Age		$\beta = -0.6977$, $P > \|t\| = 0.001$	
Gender		$\mu(\text{Female}) - \mu(\text{Male}) < 0$ $\Pr(T < t) = 0.038$	
Education		$MST = 20.65$, $P > F = 0.0025$	
Profession		$MST = 14.43$, $P > F = 0.0052$	

The above models do not control for any of the other variables. These models measure the effect of each of the listed variables on peoples' willingness to trust independent of the other variables. The reason for doing this is to examine the degree of collinearity between the variables. This examination will be made clearer with table 4.5.

My first hypothesis was that credible commitment will be positively correlated with institutional trust. Credible Commitment is an average of two variables: encapsulated interest and

consistency. Encapsulated interest refers to the degree to which a patient believes their interests fall under the hospital's interests. Consistency refers to how stable the hospital's services are.

These regression analyses (without controls) show that there is a statistically significant and positive relationship between credible commitment and institutional trust in both hospitals, as the p-value of the Credible Commitment variable is less than 0.05. Consequently, I can reject the null hypothesis (that there is no or a negative relationship between credible commitment and institutional trust) with 95% certainty.

Benevolence, honesty, and competency also follow credible commitment in having a statistically significant and positive relationship with institutional trust. In other words, the higher a person ranks those perceptions of a hospital, the more likely they are to trust hospitals. Consequently, null hypotheses two to four can also be rejected with 95% certainty.

In contrast, fairness does not bear a statistically significant relationship with institutional trust in hospitals. As is shown in the table, the p-value of the Fair variables are greater than 0.05 for both JPMC and AKUH, implying that the relationship is not significant. It suggests that we cannot reject the null hypothesis (fairness has no significant effect on trustworthiness) with 95% confidence, which is the yardstick I am using for statistical significance. Furthermore, since the 95% interval crosses 0, I cannot reject the null hypothesis (that there is no relationship between fairness and institutional trust) with 95% certainty.

I believe these results may be because of the difference in the nature of trust between citizen-government relations and patient-hospital relations. Consider what citizens entrust governments with. Generally, citizens entrust governments with the formulation, interpretation, and administration of the law in one way or another. On a broad reading, this refers to the protection

of all contracts, including those between governments and citizens, such as the provision of education, healthcare, etc. However, what is particularly important about this relationship is that it is something people are born into. The question of fairness becomes relevant once we become citizens.

These results could be because of the possible invalidity of statement 7, as my question of fairness concerned whether the hospital would show some sort of favoritism or provide special treatment to particular people for things other than the seriousness of their illness. While this matches Kim's definition of fairness, his definition was with respect to citizen-government relationships, relationships of which we are always a part and which are not explicitly economic. Consequently, the question of fairness for hospitals would only become relevant once people become patients.

The fairness statement (statement 7) was "Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment" (and the question was to what extent does one agree with this statement). However, it is not necessary to place yourself in the position of a patient to answer this question. To turn this into a valid question, one would have to say something like, "Once you have paid for your services, do you think knowing someone…" Upon payment, a person becomes a patient and, therefore, enters into a relationship with the hospital.

However, despite my suspicions regarding the construct validity of statement 7, I am not fully convinced that it is invalid. This is primarily because statement 7 still inquires into an aspect of the patient-hospital treatment. In particular, the question asks if the respondent believes that they would receive special *treatment*, and treatment is something patients receive (receiving treatment is a kind of functional property of patients). Therefore, the question still asks the respondent to

place themselves in the position of a patient. Fairness would require that all patients be treated similarly. Insofar as a patient receives better treatment than others, they are not treated equally and, consequently, other patients are treated unfairly.

Beyond this, the demographic variables, while not a central focus of the study, highlight some interesting aspects regarding the nature of the relationship between people and hospitals. These are also used as control variables to observe the effects of trustworthy variables controlling for these, e.g., whether education affects trustworthiness in health care and thereby influence citizens' trust in hospitals. Regarding age, the regression test suggests that as people get older, they become less trusting of hospitals. There are a plethora of reasons for this, but some (discussed in the literature review) may concern a greater bank of bad experiences with hospitals or uncritical interactions with social media and fake news.

Regarding gender, the results of the t-test are statistically significant and state that women are less willing to trust hospitals than men. My suspicion is that this is a complex issue related to the general differences in how women and men are treated in the public sphere. Due to the complexity of the issue, I will avoid making a comment on the matter here.

Lastly, regarding profession and education, the ANOVA tests suggest that both education and profession have a statistically significant impact on peoples' willingness to trust hospitals. This makes sense given the discussions in the literature review, which highlighted that education has an impact on which sources people use to develop their trust attitudes towards hospitals (Friedell, et al., 1997).

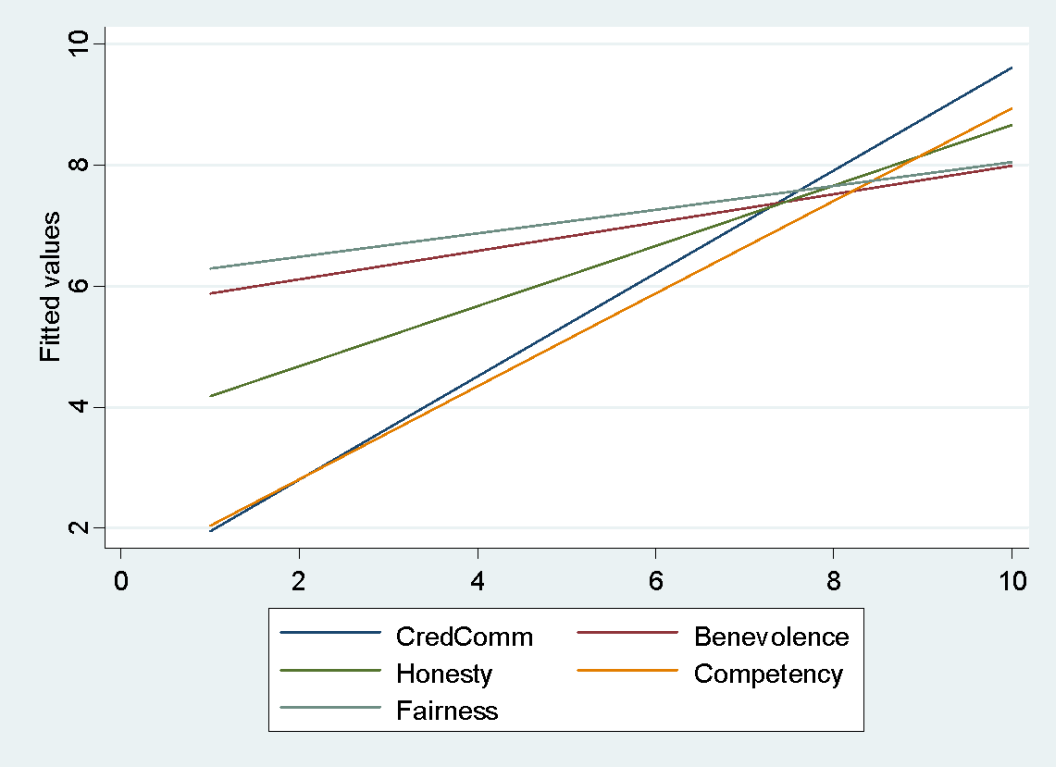
Table 4.5: Multivariable Linear Regression of Hypotheses 1 to 5

	Model 1
Independent Variables	Adj R-Squared = 0.6001, Prob > F = 0.000
Credible Commitment	β = 0.6095, P > |t| = 0.000
Benevolence	β = 0.3051, P > |t| = 0.656
Honesty	β = -0.0584, P > |t| = 0.584
Competency	β = 0.3318, P > |t| = 0.009
Fairness	β = -0.0054, P > |t| = 0.939

Table 4.5 presents each of Kim's five trustworthiness variables while controlling for the remaining four. Model 2 adds four demographic variables as controls: age, gender, education, and profession.

As mentioned before, barring fairness, the other dimensions of trust had statistically significant relationships with institutional trust. Barring two variables in the multivariable regression (Credible Commitment and Competency), the other variables no longer bear statistically significant relationships with institutional trust.

The primary reason for this could be multicollinearity, wherein the variables in question are highly correlated.



<u>Figure 7:</u> Lines of best fit for Kim's five trustworthiness variables.

As is apparent from the above graph, some of these variables seem to be very closely related, so issues of collinearity are likely to occur, which will make it difficult to draw conclusions about the explanatory and predictive power of the trust variables. For instance, consider credible commitment and competency in figure 7. These two are almost perfectly collinear and seem to be the strongest determinants of trustworthiness due to their steeper slope. However, since they are so closely related, it is difficult to say if competency directly causes greater institutional trust or indirectly causes greater institutional trust through credible commitment.

Alternatively, since the two variables are so highly correlated, it could be that there is not much variation to be explained by Competency once Credible Commitment is added in, thereby explaining its relatively lower beta coefficient. I favor this interpretation, as it preserves the

explanatory power of the variables while explaining why these variables have a weaker relationship in the multivariable regression model rather than the bivariate models (there is not much variation left to explain). To confirm this, I computed the variance inflation factor for both models.

Table 4.6: Variance Inflation Factor of Multivariable Regression of Hypotheses 1 to 5

Independent Variable	VIF	1/VIF
Credible Commitment	2.92	0.3428
Benevolence	1.41	0.3702
Honesty	2.02	0.4945
Competency	2.70	0.7116
Fairness	1.13	0.8842
Mean VIF	2.44	

A variable inflation index of 1 means that the variables are not collinear. Typically, a variance inflation factor less than 10 suggests that multicollinearity is not an issue. However, even taking a stricter convention (that of being less than 5), it is still apparent that multicollinearity is not an issue in these models.

Thus, the discrepancy between regression models with and without controls can be explained firstly by pointed out that many of these variables are closely related in both models. Consequently, one variable can account for much of the variation explained by the other variables. Accordingly, when the other variables are added into the picture, there is not much variation to be explained, thereby explaining their limited effect on the model. This preserves their explanatory power and causal mechanisms (which were explained in the theoretical framework section).

Secondly, since the variance inflation factors for the trust variables in either case are below 5, multicollinearity is not likely an issue affecting the results. Consequently, the results of the

multivariable regression with controls are reliable. This implies that, once controlled for, only credible commitment and competency seem to be significant predictors of peoples' willingness to trust out of Kim's variables.

As discussed in the methodology section, I have neither discovered nor invented theories that can account for how one independent variable explains or causes the others. Instead, I have discussed the ways in which these variables may be correlated but not causally connected. Consequently, benevolence, honesty, and fairness are not explanatorily wanting because their definitions are not sufficiently precise. Rather, it is because these variables are not substantially important for people.

This correlation could be explained by examining the institutional character and structure of hospitals. Hospitals typically cannot legally operate if, for instance, they consistently provide bad services, as the hospital will become a danger to patients. Consequently, I expect that their service-quality is good and consistent. This means their credible commitment and competency scores will be high, which is something we see in both hospitals (see table 4.4 and 4.5).

Additionally, while there are explicit restrictions on hospitals, as well as other institutions, against preferential treatment, these restrictions are not often administered. In fact, 'sifarish' (which is an Urdu term denoting 'recommendation' but connoting 'preferential treatment based on personal relations') is a norm in peoples' dealings with services. Consequently, it is understandable why the existence of 'sifarish' culture (something which most Pakistanis are accustomed to) does not significantly alter their willingness to trust hospitals: 'sifarish' is the norm, not the exception.

Similar explanations can be made for the correlations between other variables. While benevolence may be a desirable attribute of hospitals in general, in particular scenarios, people may only be concerned with their own health. If we view human nature as defined by narrow self-interest (that is where one's utility is not augmented by the welfare of others), then it makes sense why credible commitment has more explanatory power than benevolence. People are concerned with whether the hospital is interested in their health. Whether the hospital is concerned about other peoples' health is a secondary or unnecessary concern (depending on the other people).

This explanation about peoples' primary concern being with their own health (or the health of people they care about, contingent on how narrow their self-interest is) explains the honesty variable's lack of explanatory power. The honesty variable describes peoples' belief that hospital staff will tell them the truth, even if it is not in the staff's interest. The lack of explanatory power can be interpreted (in the context of the explanatory power of credible commitment and competency) as peoples' disinterest with how the hospital operates insofar as those operations address their health concerns. Essentially, if a hospital successfully treats your medical concerns, it does not matter how dishonestly they operate. This is assuming the dishonesty does not harm you, as if it did, then the dishonesty goes hand-in-hand with incompetency and a lack of credible commitment.

According to the multivariable regression with controls, I can reject the null hypotheses corresponding to hypotheses 1 and 3. There is a significant positive correlation between institutional trust (dependent variable) and credible commitment and competency (independent variables). According to the regression without controls, I can also reject the null hypotheses corresponding to hypotheses 2 and 4. However, since benevolence and honesty lose their

explanatory power once controlled for, the null hypotheses ought not to be rejected. Lastly, neither regression suggests rejecting the null hypothesis corresponding to hypothesis 5, which states that fairness will be positively and significantly related to institutional trust.

Regarding hypothesis 6, the relationship between Kim's measures of trustworthiness and measures of institutional quality is positive and statistically significant.

Table 4.7: Simple Linear Regression of Hypothesis 6

Independent Variable	Model 1 (Without Controls)	Model 2 (With Controls)
Treatment Quality	$\beta = 0.5811$, $P > \|t\| = 0.000$	$\beta = 0.5926$, $P > \|t\| = 0.000$
Service Quality (Other than Treatment)	$\beta = 0.4480$, $P > \|t\| = 0.000$	$\beta = 0.1069$, $P > \|t\| = 0.334$
Condition of Hospital	$\beta = 0.2900$, $P > \|t\| = 0.000$	$\beta = -0.1165$, $P > \|t\| = 0.149$
Institutional Quality	$\beta = 0.5095$, $P > \|t\| = 0.000$	

Institutional quality is an average measure of the above three variables. The first model (without controls) suggests that signs of institutional quality improve peoples' perceptions of an institution. The causal link between these two is in the former being objects of perception. When people appraise a hospital in terms of its competency, benevolence, etc., they typically require signs of competency, benevolence, etc. For instance, determining that a hospital is competent requires one to perceive (if not directly experience) the hospital's services. If the services are high-quality, then the perceiver will likely conclude that the hospital's personnel are competent.

However, the second model (with each variable controlled for by the others) suggests that only treatment quality matters for how trustworthy people find a hospital. This is in line with the above assumption of narrow self-interest ascribed to human beings. Nevertheless, my conventional understanding of hospitals suggests that I ought to expect some degree of sanitation

and proficiency with non-treatment services. The lack of these would seem to negatively impact my comfort with trusting the hospital. This conventional understanding may be wrong, or perhaps the item in the questionnaire was not clear enough.

Alternatively, these three variables may not be appropriate measures of institutional quality for hospitals. There are, after all, more things that people perceive in order to form their opinions about institutions along Kim's dimensions of trust. For instance, to determine if an institution is benevolent, people will likely be more interested in the institution's philosophy and the kinds of services they provide than the quality of said services. The point of this connection is not to exhaust the set of all things people perceive in order to form their opinions of institutions. Rather, the purpose is to show that these signs of institutional quality may be elements of the aforementioned set.

In conclusion, institutional quality has a positive and statistically significant effect on institutional trustworthiness. However, as model 2 shows (in table 4.7), it seems that treatment quality seems to have most of the explanatory power, as it has the greatest beta coefficient and is the only statistically significant variable. This is consistent with the results in table 4.5. As treatment quality is what people will look to when determining a hospital's competence (which explains trustworthiness to a significant degree), the relation between treatment quality and trustworthiness is expected.

Finally, hypothesis 7 shows that there is a statistically significant and positive correlation between institutional trustworthiness (which was presumed to be a proxy of institutional trust in the theory chapter) and interpersonal trust.

Table 4.8: Pearson's Correlation Coefficient between Interpersonal Trust and Institutional Trustworthiness

	Hospitals	
	Institutional Trustworthiness	Interpersonal Trust
Institutional Trustworthiness	1.0000	
Interpersonal Trust	0.7454	1.0000
P-Value	0.0000	

Interpersonal trust refers to the average of the scores on statements 11 to 13.

I can now, with some confidence, state the mechanism that I have been testing. Trust initially starts off between people as interpersonal trust. As people come together to achieve goals, they formulate procedures for achieving those goals. These procedures rely on roles (as the bearers of functions) and relations (as the connections between different functions) to achieve said goals. Taken together, these are institutions: socially constructed, goal-oriented sets of roles and relations between social entities. Initially, these institutions are underpinned by interpersonal trust between their personnel, customers, etc. Over time, as the institutions become stauncher and persistent, their reputation expands. The initial interpersonal trust between people who occupy roles is now generalized to trust of the roles themselves. For example, initially a patient may start to trust their friend, or a doctor A. Over time, the patient begins to trust doctor A, B, C, et al., not because they know them personally, but because they trust the institution for whom they work. Consequently, after a time lag, institutional and interpersonal trust are entwined and reinforce each other (evident by their positive correlation in table 5).

The remaining hypotheses explain how institutional trust arises once interpersonal trust is given (i.e., what occurs in the time lag). As institutions persist, they acquire their own properties. For

example, the quality of an institution's services is typically ascribed to the institution and not to any of its workers (even though the quality may be the sum total of each worker's individual efforts). With regards to institutional trust, the attributes of the institution play an analogous role to the attributes of people *vis-à-vis* interpersonal trust. For instance, we may perceive how people do tasks they are entrusted with and how often they do it in order to form opinions about their competency, credible commitment, etc. Similarly, we examine different signs of competency, credible commitment, etc. of institutions in order to form an opinion about these attributes.

The instances or realizations of these attributes is what we perceive. For instance, I do not see a competency. Rather, I may see many happy patients and consistently experience satisfaction with the hospital's services. These perceptions are the justification for my various beliefs about the hospital, such as the belief that a hospital is competent. It is on the basis of these beliefs that I formulate a more complex belief about the trustworthiness of the hospital.

In conclusion, institutions are predicated on interpersonal trust. As institutions develop, they begin to work towards achieving their goals. People form attitudes towards institutions based on their assessment of the institution's credible commitment, honesty, benevolence, and competency, among other things. People then base their beliefs about the trustworthiness of the institution based on their attitudes towards the institution.

Limitations and Alternative Explanations

One of the limitations of this study is the aforementioned issue with the statement used to measure fairness. Kim's definition of fairness includes the aspect that I have measured. Fairness does include an absence of preferential (i.e., unfair) treatment. However, the issue arises because this may not exhaust Kim's definition of fairness because it does not inquire about the

respondents' beliefs about what may occur after they have made a payment. For instance, if two people pay for the same service but one receives bad service and the other receives good service, then this qualifies as unfair treatment. However, my question did not inquire into this aspect of fairness. Consequently, I could not conclude that fairness is a significant part of what contributes to peoples' trust attitudes.

However, this introduces a specification that may need to be made *vis-à-vis* Kim's variables. In particular, there are different aspects of these variables. For example, I have identified two independent instances of what constitutes fairness. I can conclude that 'sifarish' is not a relevant aspect of fairness that influences trust attitudes, but this does not mean that other aspects of fairness are irrelevant. Similarly, it could be that specific aspects of benevolence, competency, etc., and not the concepts as a whole, are responsible for our trust attitudes. For instance, perhaps an institution's philosophy is less relevant than the nature of their work in determining if they are benevolent. While my results seem to suggest that most aspects of Kim's model of public trust can be applied to hospitals, further specifications and testing is required.

Furthermore, while I have limited this data to Karachi (due to the nature of the sample) another qualification is the localized nature of 'sifarish' culture. This is normalized in Pakistan, and so it would not be valid to expect people in other countries to not factor fairness (as measured here) into their trust calculus.

The remaining issues are primarily a result of limited resources (particularly time and the difficulties posed by COVID-19). Firstly, I could not formulate multiple instruments to test each concept. Therefore, more testing is required to replicate these findings and establish if the data is reliable. Secondly, the size of the sample is wanting. At 41 respondents, one could easily and

validly raise the charge of unrepresentativeness. Thirdly, the method of acquiring the sample renders it unrepresentative of the residents in Karachi, as I found respondents via snowball sampling. Consequently, not everyone in Karachi (the population) had an equal chance of being selected. Remedying this issue requires further testing.

Regarding alternative explanations, it seems to me that the skeleton of the model described here is not entirely accurate. First, let me spell out the accurate aspect. I believe that a trust attitude towards X is based on more (in a sense) atomic attitudes towards X, and these atomic attitudes are towards some perceived features of X.

However, which features and atomic attitudes determine trust is up for debate, and this is where the inaccuracy of the model reveals itself. For instance, I discussed above that people may look at features other than treatment quality to form atomic attitudes about a hospital, such as its philosophy or how comprehensive its service catalogue is. Moreover, service quality and infrastructural condition do not seem to be relevant factors in the determination of trustworthiness *vis-à-vis* hospitals.

An additional atomic attitude could be towards the hospital's organization (i.e., how efficiently it is run). This attitude may seem similar to Kim's definition of competency. Kim defines competency as "the knowledge and skills necessary for effective operations with the aim of maintaining or increasing organizational productivity" (Kim, 2005, p.626). However, knowledge and skills are not useful if the conditions for their application are not met. In other words, knowledge and skills are not useful in an unorganized institution because they cannot be applied as well. Therefore, a well-organized hospital may, *ceteris paribus*, engender more trust than an unorganized one.

This hints at the most significant alternative explanation. The results of this study have shown that Kim's model cannot isomorphically be applied to hospitals. Benevolence, fairness, and honesty do not seem to be major concerns for patients when interacting with hospitals, unlike with citizens when interacting with their governments. I believe the main impediment to the application of the model to hospitals is the nature of the services provided and the relationship between the trustor and trustee. If one wishes to amend Kim's model to better fit hospitals and other medical institutions, examining the differences in the government-citizen and hospital-patient relations and the services provided by both institutions would be the most lucrative way forward.

Chapter 5: Conclusion

This paper set out to address the question of whether Kim's model of administrative trust is a suitable fit for healthcare institutions. I circulated questionnaires regarding peoples' perceptions of the trustworthiness of two hospitals in Karachi, Pakistan and conducted quantitative analyses on the results. The results suggest that only two of the model's variables, credible commitment and competency, are significant predictors of how trustworthy people find hospitals.

One limitation may be an inadequate measure of fairness, as there are some dimensions to this perception that were not captured by the instrument used. Consequently, one should not necessarily view my results as rejecting the possibility of fairness as a predictor of trustworthiness. However, one should also not view my results as inadmissible. It could be that the aspect of fairness measured here is not a significant predictor of trustworthiness in an explicitly economic relationship (such as one between patient and hospital where money is exchanged). This is in contrast to an implicitly economic relationship (such as that between state and citizen, where taxation and government spending represent the economic nature of the relationship, but no product is guaranteed upon payment). The most important conclusion that can be drawn from these results is that people are primarily concerned with a hospital's willingness and ability to address their medical issues (i.e., credible commitment and competency), which implies that Kim's model cannot neatly be applied to hospitals.

Moreover, this paper has explained how these determinants of trustworthiness fit into the mechanism of action generally supported by institutional theories of trust. The foundation for trust is interpersonal trust. Once established, institutional trust is no longer reducible to interpersonal trust, and the two reinforce each other in a feedback loop. As institutions operate,

people ascribe different properties to their operations. For instance, people may see various instances of an institution's operations and conclude that they operate competently, etc. Specifically, people perceive instances of an institution's operations, ascribe properties to the institutions, and form attitudes towards the institutions (such as believing that an institution is credible). These 'atomic' attitudes are used to form the more complex attitude of trustworthiness. For instance, if a person believes that an institution is competent and will credibly commit to addressing the person's concerns, the person is likely to believe that the institution is trustworthy.

These results are limited in scope, as they are confined to hospitals in Karachi and, at most, to Pakistan, due to the presence of 'sifarish' culture. Consequently, research should be conducted in different healthcare contexts. Furthermore, these results require replication, as this is a foray into applying Kim's model of public trust to healthcare institutions. While the results suggest that amendments are required to Kim's model to make it fit hospitals, they cannot yet be seen as reliable. Moreover, the complications with the fairness variable suggest that there may be multiple dimensions to the other variables. This implies that researchers may need to expand on the theoretical foundations provided by Kim.

References

Locke, J., & Popple, W. (2018). *Two Treatises of Government and A Letter Concerning Toleration (Hardcover).* Lulu.com.

Tsai, K. S., and Naughton, B. "Introduction: State Capitalism and the Chinese Economic Miracle". In: Tsai, K. S., and Naughton, B. (eds) *State Capitalism, Institutional Adaptation, and the Chinese Miracle*, 1-26. Cambridge University Press, 2015.

Baier, A. (1987). Trust and Antitrust. *Ethics*, 96(2), 231-260.

Hawley, K. (2014). Trust, Distrust and Commitment. *Nous*, 48(1), 1-20.

Dasgupta, P. (1988). Trust as a Commodity. in Gambetta, Diego (ed.), *Trust: Making and Breaking Cooperative Relations* (49-72). Basil Blackwell.

Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*. Pantheon Books.

Zagzebski, L. T. (2012). *Epistemic Authority: A Theory of Trust, Authority, and Autonomy in Belief*. Oxford University Press.

List, C., & Pettit, P. (2011). *Group Agency: The Possibility, Design, and Status of Corporate Agents*. Oxford University Press.

Giddens, A. (1976). *New Rules of Sociological Method*. Hutchinson.

Haque M.M. (2021). "Patient-Doctor Trust at Local Healthcare Centers in Rural Bangladesh." In: Jamil I., Dhakal T.N., Haque S.T.M., Paudel L.K., Baniamin H.M. (eds) *Policy Response,*

Local Service Delivery, and Governance in Bangladesh, Nepal, and Sri Lanka. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-66018-5_10

Turner, J. (1997). *The Institutional Order*. Longman.

Kim, S. (2005). The Role of Trust in the Modern Administrative State: An Integrative Model. *Administration and Society*, 35, 611-635.

Wong, T. K., Wan, P., & Hsiao, H. M. (2011). The bases of political trust in six Asian societies: Institutional and cultural explanations compared. *International Political Science Review*, 1-19.

Kim, S. (2010). Public Trust in Government in Japan and South Korea: Does the Rise of Critical Citizens Matter? *Public Administration Review*, 70(5), 801-810.

Askivik, S., Jamil, I., & Dhakal, T. N. (2010). Citizens' trust in public and political institutions in Nepal. *International Political Science Review*, 1-21.

Mishler, W., & Rose, R. (2001). What are the origins of political trust? testing institutional and cultural theories in post-communist societies. *Comparative Political Studies*, 34(1), 30–62.

Baniamin, H. M., Jamil, I., & Askvik, S. (2019). Mismatch between lower performance and higher trust in the civil service: Can culture provide an explanation? *International Political Science Review*, 1-15.

Askivik, S., & Jamil, I. (2013). The Institutional Trust Paradox in Bangladesh. *Public Organization Review*, 13, 459-476.

Jamil, I., Askivik, S., & Baniamin, H. M. (2016). Citizens' Trust in Anticorruption Agencies: A Comparison Between Bangladesh and Nepal. *International Journal of Public Administration*, 1-10.

Ma, D., & Yang, F. (2014). Authoritarian Orientations and Political Trust in East Asian Societies. *East Asia*, 31, 323-341.

Mirfardi, A. (2001). Trust and its Relationship to Demographic Factors. *Journal of Social Sciences*, 7(2), 168-174.

Christensen, T., & Lægreid, P. Trust in Government: The Relative Importance of Service Satisfaction, Political Factors, and Demography. *Public Performance and Management Review*, 28(4), 487-511.

Sztompka, P. (1998). Trust, Distrust and Two Paradoxes of Democracy, *European Journal of Social Theory*, 1(1), 19-32.

Rus, I., & Iglic, H. (2005). Trust, Governance and Performance: The Role of Institutional and Interpersonal Trust in SME Development. *International Sociology*, 20(3), 371-391.

Spadaro, G., Gangl, K., Prooijen J, V., Lange, P. A. M. V, & Mosso C. O. (2020) Enhancing feelings of security: How institutional trust promotes interpersonal trust. *PLoS ONE*, 15(9), 1-22.

Rothstein, B, and Stolle, D. (2008). The State and Social Capital: An Institutional Theory of Generalized Trust. *Comparative Politics*, 40(4), 441-459.

Baek, Y. M., & Jung, C. S. (2014). Focusing the mediating role of institutional trust: How does interpersonal trust promote organizational commitment? *The Social Science Journal*, 1-9.

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393–404.

Schilke, O., & Cook, K. S. (2013). A cross-level process theory of trust development in interorganizational relationships. *Strategic Organization*, 11(3), 281-303.

Hu, G., Han, X., Zhou, H., & Liu, Y. (2019). Public Perception on Healthcare Services: Evidence from Social Media Platforms in China. *International Journal of Environmental Research and Public Health*, 16(7), 1-10.

Volkman, J. E., Hokeness, K. L., Morse, C. R., Viens, A., & Dickie, A. (2020). Information source's influence on vaccine perceptions: an exploration into perceptions of knowledge, risk and safety. *Journal of Communication in Healthcare*, 1-11.

Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2010). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*.

Helmus, T. C., Bodine-Baron, E., Radin, A., Magnuson, M., Mendelsohn, J. Marcellino, W., Bega, A., & Winkelman, Z. (2018). *Russian Social Media Influence: Understanding Russian Propaganda in Eastern Europe*. RAND Corporation. https://www.rand.org/pubs/research_reports/RR2237.html.

Nielsen-Bohlman, L., Panzer, A. M., & Kindig, D. A. (Eds.). (2004). *Health Literacy: A Prescription to End Confusion*, National Academics Press.

Friedell, G. H., Linville, L. H., Rubio, A., Wagner, W. D., & Tucker, T. C. (1997). What providers should know about community cancer control. *Cancer Practice*, 5(6), 367-374.

JPMC. (n.d.). *History of JPMC*. Jinnah Postgraduate Medical Centre. https://www.jpmc.edu.pk/jpmc-history.php.

Ali, K. (2020). *BUDGET 2020-21: Govt allocates Rs14bn for three Karachi hospitals*. DAWN.COM. https://www.dawn.com/news/1563164.

Aga Khan University Hospital. (2017). *Aga Khan University, Report 2017*. eCommons@AKU. https://ecommons.aku.edu/aku_report/10/.

Appendix

Section 1: Biographical Information

1. Age:
2. Gender:
    a) Male
    b) Female
    c) Prefer Not to Say
    d) Other
3. Education Qualifications:
    a. Illiterate
    b. Literate (can sign their name and without any formal education)
    c. Primary level (Grade 1 to 6)
    d. Lower secondary level (Grade 7 to 9)
    e. Secondary level (O Levels/Matriculation)
    f. Higher secondary level (A levels/Intermediate)
    g. Bachelor's degree
    h. Master's degree or higher
    i. Prefer Not to Say
4. Profession:
    a) Unemployed
    b) Self-employed (own business, shop keepers, etc.)
    c) Government job
    d) Private/corporate job
    e) NGO worker
    f) Homemaker
    g) Student
    h) Prefer Not to Say
    i) Other

Section 2: Jinnah Postgraduate Medical Center (JPMC)

Have you ever been treated by JPMC?

    a. Yes
    b. No

Statement	1 Not Willing at All	2	3	4	5	6	7	8	9	10 Very Willing
1. How willing are you to trust this hospital with your health?										

To what extent do you agree with the following statements with regards to JPMC:

Statement	1 Strongly Disagree	2	3	4	5	6	7	8	9	10 Strongly Agree
8. Your long-term health is in their interest.										
9. Their service-quality is consistent (i.e., not volatile).										
10. They are interested in helping people without expecting anything in return.										
11. Their personnel are honest, even if it is not in their interest.										
12. The doctors and other staff have the skills and competency to address your health-related problems.										
13. Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment.										

Rate the following about JPMC:

Statement	1 Very Poor	2	3	4	5	6	7	8	9	10 Very Good

14. Treatment Quality										
15. Service Quality (other than treatment)										
16. Condition of Hospital										

How trustworthy do you think the following personnel of JPMC are?

Statement	1 Not Trustworthy at All	2	3	4	5	6	7	8	9	10 Very Trustworthy
17. Doctors										
18. Nurses										
19. Other Employees										

Section 3: Aga Khan University Hospital (AKUH)

Have you ever been treated by AKUH?

a. Yes
b. No

Statement	1 Not Willing at All	2	3	4	5	6	7	8	9	10 Very Willing
1. How willing are you to trust this hospital with your health?										

To what extent do you agree with the following statements with regards to AKUH?

Statement	1 Strongly Disagree	2	3	4	5	6	7	8	9	10 Strongly Agree
2. Your long-term health is in their interest.										
3. Their service-quality is consistent (i.e., not volatile).										

4. They are interested in helping people without expecting anything in return.										
5. Their personnel are honest, even if it is not in their interest.										
6. The doctors and other staff have the skills and competency to address your health-related problems.										
7. Knowing someone (doctors, officials) personally in the hospital will NOT net you preferential treatment.										

Rate the following about AKUH:

Statement	1 Very Poor	2	3	4	5	6	7	8	9	10 Very Good
8. Treatment Quality										
9. Service Quality (other than treatment)										
10. Condition of Hospital										

How trustworthy do you think the following personnel of AKUH are?

Statement	1 Not Trustworthy at All	2	3	4	5	6	7	8	9	10 Very Trustworthy
11. Doctors										
12. Nurses										
13. Other Employees										