In Search of Shangri-La of Freedom

A Story Behind the Prosperous Development and Analysis on Child Education in Hunza

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Abstract

Hunza Valley, in Northern Pakistan, which is said to be the model of *Shangri-La* in a well-known novel "Lost Horizon," is a mysterious place. Located in a severe mountainous terrain and being a less populous region, it is enjoying the highest literacy rate within the country, providing every child with opportunities of education regardless of gender. The stark difference between Hunza Valley and any other regions throughout the country is the fact that female literacy is unbelievably high in this region. Even more, women have become an *integral part* (International Labour Organization, 2002) of the society of Hunza. In this paper, histories behind the success in female education and empowerment, effects brought about by these changes, and current situation of child education are analyzed. It was found that religious leaders Aga Khan III promoted boys' education and his successor Aga Khan IV promoted girls' education and religious piousness helped people smoothly embrace their innovation on education. Multiple logistic regression, implemented to investigate factors influencing child education, revealed that parents' education and socio-economic factors are key determinants of child school enrollment. As a conclusion, despite the great advancement, there are still children left behind. In order for Hunza to become a real Shangri-La of freedom, universal education which focuses not on augmenting human capital but on developing human capability needs to be promoted even more.

Keywords: Hunza Valley, literacy, logistic regression, capability approach, empowerment

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On November 21, 2019, 11-year-old girl was murdered by her relatives including her father allegedly because she had an illicit pre-marital relation with someone (Ahmed A. , 2019). This is regarded as one of cases called *Honor Killing* prevalent in Pakistan. It is thought that women who are judged to have done certain things forbidden in the community bring a dishonor into their families and they need be killed in order to restore the honor of the families. It is an unjustifiable murder for two reasons. First and foremost, it is unlawful and immoral to take anyone's life in any circumstances in the first place. Secondly, in many cases, women killed are innocent and rather victims. Since having a sexual behavior itself is regarded as a dishonor, they are killed even when they are sexually abused. Such horrible homicides are occurring approximately 1,000 cases every year in Pakistan alone (Jozuka & Saifi, 2020). Honor killing is just one apparent example of issues related to gender discrimination that surfaced. Such unjust acts towards women are deeply rooted in traditional social customs that have been lasting for long.

Today, facing such challenges, the international society is striving to enhance women's social status. The same is true of Pakistan. Pakistani Nobel Prize winner Malala Yousafzai has encouraged comrades. However, Pakistan is still far from gender equal country. According to The Global Gender Gap Index 2020 rankings, Pakistan is ranked 151 and this is the third worst following Iraq and Yemen (World Economic Forum, 2019). In Pakistan, traditional custom and social norm define the roles of men and women. A female informant interviewed articulates that it is unacceptable just to walk outside alone in her family and it is probably the same in most families (Murtaza, 2012).

In contrast to such general circumstances of the whole country, there is one abnormal region running in the forefront of female empowerment in Pakistan: Hunza Valley. Hunza achieved exceptionally high literacy rate and more. In this paper, after defining key concepts such as empowerment and clarifying rationale for the connection between literacy and empowerment, causes of the success of education in Hunza and its effects are analyzed through the critical exploration of previous literatures. Then, the current situation of child education in Hunza is analyzed from the quantitative perspective. It is significant since finding out the causation and influential variables might help navigate Pakistan to better way.

Review of Literature

Significance of Literacy and Empowerment

What is Empowerment?

As Kabeer points out, the definition of the word *empowerment* is not officially defined (Kabeer, 1999). Perhaps it is rather meaningful to leave some room for the definition in order for each individual to promote and utilize the concept. Nevertheless, providing some popular definitions of empowerment is helpful when it comes to discussing this topic. Here is one of the most popular definitions originally provided by United Nations:

> Women's empowerment has five components: women's sense of self-worth; their
>
> rights to have and to determine choices; their right to have access to opportunities
>
> and resources; their right to have the power to control their own lives; both within
>
> and outside the home; and their ability to influence the direction of social change to
>
> create a more just social and economic order, nationally and internationally. (wg-
>
> team, 2017)

Kabeer also clarifies that empowerment is a process of acquiring abilities to choose

autonomously where they were denied previously (Kabeer, 1999).

Education and Literacy Connected to Empowerment

Why education and literacy are to be discussed at the same time with empowerment?

Education and literacy are the largest keys to empowerment for several reasons. Firstly,

education works to let people learn the concept of human rights. Even though the very first step

towards empowerment is obviously to know that each individual has a right to choose a life they

want to live as a matter of pure fact, 90% of interviewed girls were not even aware that they have

such rights (Murtaza, 2012). Secondary, by the definition given by Kabeer previously, the

process itself of becoming literate through education almost quals to empowerment (Ali & Ali,

Empowerment Higher Education Nexus: Women Celebrating Change in Hunza, 2015). This is

because as you acquire literacy skills, you are going to be able to amass more information, which

simultaneously and naturally increases more options to choose from. Moreover, several macro

effects such as impacts on economy has already been pointed out. This is the case because the

better women are educated, the more job opportunities they can get (Johnston, 2004; Rahman &

Uddin, 2009; Kremer, Chaudhury, Rogers, Muralidharan, & Hammer, 2005). Education also

helps reduce infant mortality rate and poverty, by enabling women to earn themselves (Hussain,

Zakaria, Hassan, Mukhtar, & Ali, 2003; Murtaza, 2012). It even reduces violence since women

who have acquired earning skills no longer deed to be dependent on men (Murtaza, 2012). For

those several reasons, education is tightly connected to empowerment and it is significant to

discuss them at the same time.

Various Interpretations of Key Concepts

When discussing things, defining terms is the very first step in any situation. Although terms like education and empowerment are frequently used these days in daily conversations, it is not easy to define them in a complete way since each person uses those words slightly differently. The definitions below are some of the most popular and significant interpretations of terms.

Two Perspectives of Education

Now, there are two different ways of seeing education: an orthodox perspective and a feminist perspective. They are explained here since the distinction is relevant in later sections.

Orthodox Perspective. An orthodox perspective sees education as nothing more than a function to make citizens more efficient in their respective roles in capitalistic society. In the context of female education, educated women are expected to be better at taking care of their children, and wiser in using money and so on (Ali & Ali, Empowerment Higher Education Nexus: Women Celebrating Change in Hunza, 2015).

Feminist Perspective. Feminist perspective takes education as an optimal means to empower women. It expects education to let women discover the new possibilities and enable them to pursue the life they appreciate (Ali & Ali, Empowerment Higher Education Nexus: Women Celebrating Change in Hunza, 2015).

Two Perspectives of Empowerment

As the discussion was developed, the way to understand empowerment was also divided into two main perspectives: a feminist perspective and a contemporary perspective.

Feminist Perspective. The discussion around empowerment at first started from a feminist perspective. From this perspective, the objective of empowerment is purely the

development of personalities and expansion of individuals' possibilities including political, economic and civil participation (Ali, Empowerment beyond resistance: Cultural ways of negotiating power relations, 2014; Rezai-Rashti & Moghadam, 2011).

Contemporary Perspective. Contemporary perspective, emerged from neoliberal way of thinking, sees empowerment as a means through which the economic development of the country and society is achieved (Ali & Ali, Education and Women's Empowerment in Northern Pakistan: Tracing Accomplishments and Predicaments, 2015). Thus, the fundamental objective is different from the counterpart.

Amartya Sen's Capability Approach

Having mentioned two distinct currents of perspectives for each concept, education and empowerment, Amartya Sen's *Capability Approach* helpfully synthesizes and underpins them conceptually. Sen explains capability by bringing out the contrast between human capability and human capital:

> At the risk of some oversimplification, it can be said that the literature on human capital tends to concentrate on the agency of human beings in augmenting production possibilities. The perspective of human capability focuses, on the other hand, on the ability-the substantive freedom-of people to lead the lives they have reason to value and to enhance the real choices they have (Sen, 1999, p. 293).

According to Sen's idea, education from orthodox perspective and empowerment from contemporary perspective addresses human capital, and those from feminist perspective are the attempts to expand human capability.

Background

Before diving into the analysis, educational backgrounds of Pakistan and Hunza is overviewed here.

Education in Pakistan

Literacy Rate. At the point of 2012, the literacy rate of those aged 15 and above in Pakistan is 56%. The huge gap among province is suggested: although populous and advanced cities such as Lahore, Islamabad and Karachi tend to have high literacy rate about 75%, tribal areas have low literacy rate the worst of which is as low as 9% for girls are not permitted to go to school (Rehman, Jingdong, & Hussain, 2015).

Reasons Behind the Low Literacy Rate. The largest factor contributing to such a low literacy rate is traditional custom of the country (Murtaza, 2012). Pakistan is a paternalistic society where social roles that are expected to be played by each gender are predetermined (Chaudhry & Rahman, 2009). A as literatures show, this type of social structure affects greatly on allocation of education, giving educational priorities to boys (Burney & Irfan, 1991; Hashmi, Zafar, & Ahmad, 2008; Herz & Sperling, 2004). As an example, there is a social custom called *purdah*, which means veiled and whose basic idea is to insulates women from society (ASIAN DEVELOPMENT BANK, 2000). Following purdah, women are often prohibited from walking outside alone, let alone participating a decision-making within a family (Shaheed, 1989).

The chasms between urban and rural areas with reference to socio-ecnomic circumstances are significant. In rural areas, paternalistic system is attributed to the reproduction of poverty, since the gender roles are fixed and it technically makes it implausible for women to go up the social ladder (Murtaza, 2012). Indeed, more than 80% of out-of-school children and the majority of the illiterate people are living in rural areas (Benz, 2013).

Even if girls are accepted to go to school, socio-economic factors are still high hurdles. In poor households, children, especially girls need to do housework rather than open books and such girls' circumstances are taken for granted (Tansel, 1997). Also, a vicious cycle existing here is that poor households have relatively high fertility rate so that they have more labor forces and it makes them even difficult to allocate education to every child as a result (Chaudhry & Rahman, 2009).

As for other factors relating to education, studies show the social status and jobs of parents, especially of mothers, facilities of education, and the quality of education have such great influences on child education (Ahmed S. , 2007; Ridker, 1997). Especially in Pakistan, corruptions of schoolteachers are severe issues. Many report that teachers are hired without license or they get paid but does not show up at schools (Transparancy International, 2014)

Hunza District in Gilgit-Baltistan, An Exceptional in Education. Hunza, in contrast, is quite triumphant in education. Education from primary level up to secondary level is mandatory (International Labour Organization, 2002). Female literacy rate is estimated at least 77% and at most 95% and there is a specific village where 100% of the residents are conjectured to be able to read and write (International Labour Organization, 2002; Starrett, 1998).

Regarding school attendance, more than 90% of children go to either government-run schools or ones run by Aga Khan Education Service, which is an organization to foster education (Kreutzmann, 1993).

What is surprising is the fact that quite a few girls pursue even higher education. Thanks to parents' supportive attitudes toward female education, it is so much as a norm for girls to proceed to highly education (Ali & Ali, Empowerment Higher Education Nexus: Women Celebrating Change in Hunza, 2015).

Previous Studies

In this large chunk of section, the secrets behind the success of Hunza in contrast to general circumstances of the country and the results brought about by this are analyzed by critically exploring previous literatures. This section is divided into four subsections in order of time scale, commencing form the first subsection, Before Achieving High Literacy Rate, which examines the social circumstances before the change, followed by the two strata of development, to the last subsection, The Sequels of Achieving High Literacy Rate and Empowerment, in which the results and effects induced by the innovation of Hunza are analyzed.

Before Achieving High Literacy Rate

Relatively Equal Society. Interestingly, what makes Hunza distinct from other regions seems to be found in its fundamental characteristic of relatively gender qual society. Kreutzmann points out the flexibility of gender roles in Hunza citing that "In Hunza from ancient times, a man who is able to, does every kind of men's and women's work, and a woman who is able to, does both women's and men's work" (Kreutzmann, 1993). This point is supported by Miller's study. She conducted a field research and studied about the education in Hunza. What she was startled at was the fact that girls in Hunza are very affirmative about things that the most typical Pakistanis reject such as western style education (Miller, 2015).

Schools. Despite such progressive attitudes, education was not common at all in Hunza in the past just like other parts of Pakistan. The very first school was built in 1892 by the British government which at that time was ruling the region (Miller, 2015). However, at that point, this school was only for a few elite boys (Benz, 2013). What is more, a special permission from local rulers was necessary to go to school (Miller, 2015). Thus, there was no significant difference between Hunza and other regions at that point.

The Foundation: Initial and Crucial Innovation on Education

Aga Khan III. The first and perhaps the most pivotal change was set in motion by an

Imam, a religious leader Aga Khan III, Sir Sultan Muhammad Shah. He began putting great

emphasis on education in *firman*, an authoritative pronouncement given by the religious leader.

Since firman is a religious order, people do not have a choice of rejection. As a result, his vision

was quickly put into practice. The big advancement was the establishment of schools in Hunza.

In 1946, 17 schools were built, which are now called *Diamond Jubilee* (Benz, 2013;

Kreutzmann, 1993; Murtaza, 2012). By around1990, 39 Diamond Jubilee schools had been

established (Miller, 2015). Still, Diamond Jubilee schools were exclusively for boys and most

girls did not seem to have education yet at this point according to some literatures (DAWN,

2009; Murtaza, 2012; Benz, 2013; Miller, 2015). Miller, on the other hand, as a result of a field

research, states that Aga Khan III is recognized to have promoted education for girls as well by

some certain number of people, which seems contradicting with the majority of other literatures

around this study. For instance, Benz clearly states the following:

> In the first decade after independence, and again in the subsequent decade, the
>
> number of government schools in Gilgit-Baltistan more than doubled (GoP
>
> 2006a). Almost exclusively boys' schools were established in the 1940s and
>
> 1950s in both, the Aga Khan school programme and the government's
>
> education initiatives, and girls' education was widely neglected.
>
>   It was only after the visit of Shah Karim al-Hussaini, Aga Khan IV to
>
> the Hunza Valley in October 1960 that female education started to gain more
>
> attention. (Benz, 2013)

Thus, further research is needed to confirm to what extend Aga Khan III facilitated providing education.

Aga Khan IV.

Female Education. It is widely agreed that the effort to bring an innovation on education was handed down to Aga Khan IV. He promoted female education, turning Diamond Jubilee into co-education and even building schools for exclusively women (DAWN, 2009). As expected, despite of the relatively gender flexible Hunzakuts' innate traits, people were confused with the au courant innovation. Then each Hunzakut gave each different account of the Imam's vision to make sense of it. Some people assumed the importance of influence of educated mother over children or the impacts brought about by education on their family as a whole. Others understood female education is important as a way of empowerment so that each person create more values to their communities (Miller, 2015).

Aga Khan Development Network. Gilgit Baltistan had been ignored by the Pakistani government since it is a very rural and less populous region and thus it does not appear to have much economic contribution. Instead, Aga Khan Development Network and a number of suborganizations were established in 1967 in order to efficiently fulfill Imam's vision and help develop local communities in place of the government, albeit not with hostility but with amiability to it (Sökefeld, 2014).

AKRSP, WOs and AKES. Aga Khan Rural Support Program (AKRSP) and its sub organizations Women's Organizations (WOs) and Aga Khan Education Service (AKES) had significant influences on women's social advancement and education respectively in Hunza as evaluated later. This section gives a précis of the general description of discussion related to them.

Overview. In 1982, Aga Khan Rural Support Program (AKRSP) was established by AKF, which support the activities of AKDN. The objective of AKRSP is to help poor local farmers and build capacity so that the community could flourish efficiently and autonomously (AKRSP, n.d.). AKRSP consists mainly of two suborganizations: Village Organizations (VOs) and Women's Organizations (WOs) (AKRSP, n.d.). VOs deal with agricultural development, claiming new lands or building infrastructures, and WOs promote the social advancement of women, training women so they earn income-generating power. Since the original objective of AKRSP was the agricultural development, VOs had done quite a few related to agriculture such as building irrigation systems; however, it is not directly relevant to this paper, so it is not investigated in depth.

Results. As a result of AKRSP, especially WOs, female participants not only gained skills and knowledges about plant, poultry, money but also appreciated their own ability to independently earn money (Parish, 1999). In general, AKRSP is regarded successful. Among numerous projects under WOs, Joekes refers to an unsuccessful and successful cases as examples: installation of apricot kernel crushing machine and introduction of new vegetables and poultries respectively (Joekes, 1995; Bebbington & Perreault, 1999). Kernel machine was introduced in an attempt to save labor; however, it turned out that it did not contribute to improving productivity, and it was abandoned. On the other hand, women soon came to produce new goods for their own consumption and also for supplying in their domain (Parish, 1999; Joekes, 1995).

As for macro effects, economically, due to the intervention of AKRSP, income of villagers increased from 10 to 50 points according to World Bank (Nyborg & Ali, 2005). Death

rate of especially women and children decreased as a result of establishing better infrastructure and building roads (Nyborg & Ali, 2005).

Critical Views. Although AKRSP is generally successful especially in Ismaili regions including Hunza and it has been working since then, there is also critical views on it. Critics made by Settle is that AKRSP is successful only in Ismaili regions and it is not the case in non-Ismaili regions (Settle, 2011). Indeed, it was reported that AKRSP was not welcomed in Sunni and other Shia regions. For instance, Nagar originally had about 200 VOs running every year but they had already ceased the operation for good (Settle, 2011). Nayab and Ibrahim add another shocking fact to testify the failure in Nagar. They found that 80% of women from rich households, which occupy 11% in Nagar expressed in interviews that AKRSP was effective; however, as much as 93% of women from poor households deemed it was ineffective. Through analyses, they concluded that the catastrophe caused by AKRSP was inequality of benefit and marginalization of poor people in some regions. Having been analyzed by critical views in why AKRSP was not successful in specific regions, it is fair to also be discussed why it was successful in Ismaili regions. Walter analyzes that Hunzakuts succeeded in the project since they proactively participated in the project by themselves. AKRSP was a project that fosters *self-help* development; therefore, proactive participation of citizens was of necessity. Sökefeld points out that Hunzakuts who belong to Ismaili and Nagerkuts who belong to Shia identify themselves completely differently even though they speak the same language, and such difference is certainly a part of reasons why the level of enthusiasm was different between those regions (Sökefeld, 2014). Hunzakuts regarded the firman by Aga Khan was a mandatory direction and thus, tried hard to fulfill their religious duties (Sökefeld, 2014). Needless to say, religion plays a

huge role here; however, it is not congruous to attribute all the failures to AKRSP's

maliciousness; participants' devotion was also a key to success.

Further Development: Impacts of AKRSP, WOs And AKES on Female Empowerment:

Education and Rights. Although AKRSP is receiving some critical assessments, it is also

undeniable that it helped empower women quite a bit at least in Hunza, whose causes and effects

are the very interests of this paper. In this section, contributions of AKRSP and WOs with

regards to female empowerment are examined.

Community Schools. AKES was establishing private schools called *up-grading schools* to

provide high quality education during 1990s (KARAKORAM INTERNATIONAL

UNIVERSITY, n.d.). However, up-grading schools were expensive due not only to quality

teachers, but also to sophisticated facilities and materials. Then AKES devised the concept of

community schools. Basic scheme is that AKES sends quality teachers who are trained in their

facility, *Professional Development Centres* to local communities and the communities pay

salaries to the teachers in return and take care of whatever issues happened there, instead of just

educating children in fancy settings, which enabled to provide better education at moderate

tuitions (KARAKORAM INTERNATIONAL UNIVERSITY, n.d.). By virtue of this system,

almost every child has obtained access to quality education. Now the existence of community

schools, which outnumbers those run by government, is one of the characteristics of Hunza (Al

Jazeera English, 2016). Community schools invites students' parents or grandparents to schools

so they can participate in their children's education, which let elderly people feel the sense of

worth and make a firm connection between schools and communities (Benz, 2013).

Karakorum International University (KIU). The very first university in Gilgit Baltistan

was established in 2002. Before the existence of this university, all students who graduated from

secondary schools needed to go down the country to other regions to continue studying, which

was financially implausible to most poor households (Benz, 2013; KARAKORAM

INTERNATIONAL UNIVERSITY, n.d.). Karakorum International Universities certainly gave

many more opportunities for girls to expand their freedom by acquiring higher education. KIU

has several campus including KIU Hunza and Women Campus, which surely helped female

students pursue higher education (KARAKORAM INTERNATIONAL UNIVERSITY, n.d.).

Parents' Views on Female Education. In Hunza, parents and people are aware of the

importance of female education. Moreover, they put a great emphasis even on university level

education. A female respondent who went through higher education answers:

> Perception of people of Hunza towards higher education has changed a lot due
>
> to the emerging organizations and institutions in the region. These have
>
> influenced people's minds so much that their perception about women's
>
> education has changed a lot. (Ali & Ali, Empowerment Higher Education
>
> Nexus: Women Celebrating Change in Hunza, 2015)

According to the testimony, the substantial initiatives by Aga Khan and the numerous projects

led by AKDN affected people's mind in the way Aga Khan had originally envisioned.

The Sequels of Achieving High Literacy Rate and Empowerment

Owing largely to the initiatives by Aga Khan III and his successor Aga Khan IV, Hunza

has achieved high female literacy rate and it has been enjoying the process of women's

empowerment albeit not perfect (Settle, 2011). In this section, further changes induced by those

development is inspected. Generally, a mutation of one variable often serves both as a cause and

an effect of another mutation. Thus, some details which previously appeared show up again,

being combined with other points.

On-Going Empowerment. Having been attaining access to education and successfully enhancing the ability to read, write, and critically think, women experienced empowerment. An educated female Hunzakut says:

> I think when a woman is educated; she is more aware of things and is in control
>
> of her life. Besides, when an educated woman starts earning, she is valued
>
> more in the family as well as in the society at large because of the economic
>
> value. She also has say in the decision making. (Ali & Ali, Empowerment
>
> Higher Education Nexus: Women Celebrating Change in Hunza, 2015)

Her words encapsulate and rigidly prove the success of education and empowerment. As noted in the earlier section, each concept, education and empowerment, is grasped through two lenses: feminist perspective and orthodox perspective, and feminist perspective and contemporary perspective for each notion. Her remarks on education and empowerment satisfy both aspects.

Rezai-Rashti and Moghadam indicate that in theory, attainment of higher education makes individuals active to economic, social and political participation (Rezai-Rashti & Moghadam, 2011). This was clearly confirmed by dozens of empirical literatures. Despite the fact that increased workload on women due to increasing demand induced by the introduction of capitalistic markets, they are readily accepting such burden in exchange for better life, feeling the sense of worth in generating values independently of male power (Joekes, 1995; Miller, 2015).

Gender Equality. As a result of equalized education, gender disparity in Hunza is the smallest within Gilgit Baltistan. Even more, female gross enrolment rate from primary level to intercollege level exceeds that of boys (Benz, 2013).

Potential Issues. In general, education and empowerment bring benefits, enhancing the quality of life; however, transformation of life caused by them has also generated unpredictable

side effect (Settle, 2011). A boy from Karachi states in an interview that nowadays, people in

general do not have altruism and respectful mind that old society had had before. This might be

because of the influence of foreign ideas, he surmises. Interestingly, those who are educated and

successfully expanded their choices of life are preoccupied with earning even more money. The

informant asserts that people today see only *zahir*, apparent aspect, and do not try to look at

batin, hidden aspect. The most important thing with reference to one's life is amorphous and it is

based mostly on values. In order to see the intrinsic existence of the world, he says, parents ought

to educate their children as a so-called informal education apart from formal education given at

schools. Education could be both a source and a solution of a problem.

This trend is a threat to Hunzakuts; however, as far as a researcher observes, Hunzakuts

are still treasuring the intangible side of life. Miller states that Hunzakuts often discuss what

good education means and other essential matters. Moreover, Miller points out that Hunzakuts

have developed such ways of seeing education on their own as opposed to what AKDN or even

firman wan initially intended; they had not prospected such a spiritual development through

innovation (Miller, 2015). Still, it is not ensured whether Hunzakuts are able to sustain such

mentalities forever or not.

Conceptualizing the Change in Hunza in the Context of Modernity

Modernity and Jadidism. Development initiated by Aga Khan is viewed as *modernity*.

When it comes to development and modernity, there are numerous discussions around those

topics. Development is often seen as a means or a justification for neoliberalists' attempt to

expand the capital market (Felmy, 2006). The case of Hunza development might not be an

exception. Indeed, the original concept of AKDN was standing greatly on the orthodox

perspective of education and the contemporary viewpoint of empowerment: they had planned to

educate and empower people so that they would come to work more efficiently and earn more, which would ultimately be benefits of communities (Miller, 2015). Specifically, it is conjectured that Aga Khan III, who embarked on the innovation, was hugely influenced by *Jadidism*, a movement occurred during the late 19th century and the early 20th century (Khalid, 2018). Muslim intellectuals and reformists, which are the origins of words, *Jadid*, were keen to modernize the Islamic society so that they make sure that Islamic world is compatible with western modern world. It happened mainly in Russia and Central Asia.

> ***Michel Foucault's Conceptualization of Modernity and Hunza.*** When looking at modernity in Hunza, Michel Foucault's way of seeing modernity is helpful. Foucault states the following with regards to modernity:

> I wonder whether we may not envisage modernity rather as an attitude than as a period of history. And by 'attitude,' I mean a mode of relating to contemporary reality; a voluntary choice made by certain people; in the end, a way of thinking and feeling; a way, too, of acting and behaving that at one and the same time marks a relation of belonging and presents itself as a task. A bit, no doubt, like what the Greeks called an ethos. And consequently, rather than seeking to distinguish the 'modern era' from the 'premodern' or 'postmodern,' I think it would be more useful to try to find out how the attitude of modernity, ever since its formation, has found itself struggling with attitudes of 'countermodernity.' (Foucault, 1984)

Foucault proposes that modernity should be apprehended not as a certain stage of development but as an attitude of agencies. Looking back at the process of development in Hunza, it is apparent that the local communities and Hunzakuts had a very affirmative view on the

innovation, due mostly to the piousness towards their Imam, Aga Khan, and thus, they tried hard

to interpret the development and proactively participated in the project. Walter identifies four

main factors behind the proactive participation of Hunzakuts and their communities.

- In Gilgit-Baltistan, the authorities hardly take care of social concerns. Besides

    maintaining schools, which are often considered as substandard, the Pakistani

    state is hardly present in the social sector; this fact is often considered to lead

    to increased frustration among the educated youth.

- People want to fight off established prejudices about the backward mountain

    areas.

- The long-standing activities of AKDN gave a positive example of development

    work and taught the people to organize at the community level in order to

    "make a difference".

- The most important motivation is the makeup of the society, the network of

    family ties, which creates a basic feeling of interdependence and responsibility.

    (Sökefeld, 2014)

It is interesting to note that Walter looked at the fact that Hunza is a rural, less populous,

and almost forgotten region and the residents is the "minority within a minority"

(Morrow, 2001). This means so called middleman minority theory works.

    Middleman Minority Theory to Explain Proactive Participation. Middleman minority

theory is a widely known sociological theory that describes the fact that minority group tends to

develop middle jobs such as trading or moneylending. As an illustration, Greene and Butler give

a précis of the three main elements of the theory:

First, the minority group (often described as sojourners, although this element

is used less often in contemporary research) faces discrimination from the

majority group, especially with regard to economic opportunities in the

primary sector of the labor market. Second, the members of the minority group

tend to develop enterprises located in specific industrial sectors. Playing the

middleman position means that they negotiate products between producer and

consumer, owner and renter, elite and masses, and employer and employees

(Bonacich, 1973). Therefore, they are likely to be found in enterprises such as

labor contractor, rent collector, money lender, small retail trade, and broker.

Most often these enterprises fall into the category of small business. And third,

the group exhibits strong elements of solidarity among its members. (Morrow,

2001)

It can be stated that projects led by AKDN successfully served as middleman between local

communities of Hunza and capital markets outside the region.

Autonomous Metamorphosis in the View Towards Education. As noted previously, the

promotion of education was originally based on the standpoint of human capital and AKDN and

even Imam had not been intended to empower Hunzakuts in the feminist sense at the onset.

However, Hunzakuts and local communities clearly rejected such human capital view and they

preferred more capability-centered interpretation (Miller, 2015). Although the causes of such

transmutation could not be identified in this paper, Sen's theory along capability approach gives

hypotheses. Sen describes the effects of education:

Even with the same level of income, a person may benefit from education-in

reading, communicating, arguing, in being able to choose in a more informed

way, in being taken more seriously by others and so on. The benefits of

education, thus, exceed its role as human capital in commodity production. The

broader human-capability perspective would note-and value-these additional

roles as well. (Sen, 1999, p. 294)

According to Sen, education has functions, in its nature, not only to make students

productive in the given tasks, but also to develop various aspects of their capabilities.

Hunzakuts might have experienced the same phenomena.

Methodology

Now that by reviewing previous studies which are mostly qualitative, the causes and the

processes of development of Hunza were identified, subsequent sections attempt to analyze

education in Hunza from a quantitative perspective. It is analyzed whether empirical data

actually shows gender parity, which is arguably achieved to a great extent based on qualitative

research, and also what factors now determine children's acquisition of education, by way of

logistic regression analysis.

Data Source

Education Data

The dataset mainly used in the analysis is Annual Status of Education Report (ASRR)

Pakistan 2016. This was accessed through Pal Network since it was technically impossible to

access to the dataset directly in ASER site (PAL NETWORK, n.d.). ASER is an annual survey

that investigates education status, health, and other basic information of children and their

parents on household level. Detailed information about the survey is clearly explained in an

official manual (ASER Pakistan).

Spatial Data

Map data of Pakistan was obtained from The Humanitarian Data Exchange (The

Humanitarian Data Exchange, 2020).

Data Wrangling

In order to conduct an analysis, the dataset is edited. The followings are important

changes in the dataset. For Hunza, fathers' education and mother's education have 33 missing

values in total. Ownership of household has also 33 missing values. In total, 59 rows or 3.6% of

the sample were eliminated from the dataset. Likewise, 5.2% of the whole data were deleted.

Multiple Logistic Regression Analysis

Multiple logistic regression Analysis is used to find out what factors are influential in

determining child school enrollment. Such coefficients $\boldsymbol{\beta} = (\beta_0, \beta_1, \ldots, \beta_p)$ that maximize the

likelihood function in Equation 1 are estimated. In the following equations, $\mathbf{x}$ denotes $(x_1, x_2, \ldots,$

$x_p)$ and $\pi(\mathbf{x})$ denotes the conditional probability that response variable is one given $\mathbf{x}$, $\Pr(Y = 1|\mathbf{x})$.

There are n independent cases $(\mathbf{x}_i, y_i)$, where $i = 1, 2, \ldots, n$ (Hosmer, Lemeshow, & Sturdivant,

Applied Logistic Regression Third Edition, 2013).

$$l(\boldsymbol{\beta}) = \prod_{i=1}^{n} \pi(x_i)^{y_i}[1 - \pi(x_i)]^{1 - y_i}, \tag{1}$$

where

$$g(\mathbf{x}) = \ln\left(\frac{\pi(\mathbf{x})}{1 - \pi(\mathbf{x})}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p, \tag{2}$$

$$\pi(\mathbf{x}) = \frac{e^{g(\mathbf{x})}}{1 + e^{g(\mathbf{x})}}. \tag{3}$$

For mathematical purposes, *log-likelihood*, which is derived by log transforming the Equation 1 is also used. The equation is as follows.

$$L(\boldsymbol{\beta}) = \ln[l(\boldsymbol{\beta})] = \sum_{i=1}^{n} \{y_i \ln[\pi(x_i)] + (1 - y_i) \ln[1 - \pi(x_i)]\}. \tag{4}$$

Variable Selection

As the response variable, school enrollment was selected. Although the dataset has an ordinal variable which indicates literacy level, school enrollment is more explicit in assessing educational situation. This binomial variable indicates whether a child is *currently* enrolled in a school or not. In other words, cases which had dropped out of school are counted as negative or zero.

Explanatory variables were selected based on hypothetically relevant socio-ecnomic factors: age, gender, parents' education, number of children in each household, and ownership of household. Parents' education here is defined whether or not at least either of mother or father has ever enrolled in schools at levels of primary or higher. Number of children is relevant since, in general, as the number of children in a household increases, less and less money can be allocated to each child's education. Since the dataset does not include indices to directly measure the wealth such as the income of a household, ownership of household is used as an indicator of wealth. This indicates whether or not the house is possessed by the household.

Models

As Figure 1 shows, parents' education seems to have a correlation between number of children and ownership of household. Thus, two separated models, Model 1 and Model 2 were built so as to avoid multicollinearity. Model 1 takes age, gender and education of

parents as explanatory variables; on the other hand, Model 2 takes age, gender, number of

children and ownership of household.

Model 1

Model with Explanatory Variables of Age, Gender, Parents.Edu

$$\log \left[\frac{P(\text{School.Enrollment} = 1)}{1 - P(\text{School.Enrollment} = 1)} \right]$$

$$= \beta_0 + \beta_1(\text{Age}) + \beta_2(\text{Gender}_1) + \beta_3(\text{Parents.Edu1}_1) + \epsilon$$

Model 2

Model with Explanatory Variables of Age, Gender, Num.of.Child, and Household.Ownership

$$\log \left[\frac{P(\text{School.Enrollment} = 1)}{1 - P(\text{School.Enrollment} = 1)} \right]$$

$$= \beta_0 + \beta_1(\text{Age}) + \beta_2(\text{Gender}_1) + \beta_3(\text{Num.of.Child})$$

$$+ \beta_4(\text{Household.Ownership}_1) + \epsilon$$

Assessment of Models

Explanatory variables with p values smaller than 0.05 is to be considered. Estimated

coefficients are explored to examine the effects on child school enrollment. Also, 95%

confidence intervals are investigated to estimate the accuracy of the explanation on population.

Hosmer-Lemeshow Goodness of fit test, Akaike Information Criterion, and Bayesian

Information Criterion are implemented to assess the goodness of fit and to compare models.

Hosmer-Lemeshow Goodness of Fit Test. Hosmer-Lemeshow goodness of fit test

formulated in Equation 5 is used in order to test how well the models are fitted in the data. It first

estimates the probabilities of dependent variables to be one and arranged them in a descending

way.

$$\chi^2_{HL} = \sum_{k=1}^{g} \left[\frac{(o_{1k} - \hat{e}_{1k})^2}{\hat{e}_{1k}} + \frac{(o_{0k} - \hat{e}_{0k})^2}{\hat{e}_{0k}} \right], \tag{5}$$

where

$$o_{1k} = \sum_{j=1}^{ck} y_i,$$

$$o_{0k} = \sum_{j=1}^{ck} m_j - y_j,$$

$$\hat{e}_{1k} = \sum_{j=1}^{ck} m_j \hat{\pi}_j,$$

$$\hat{e}_{0k} = \sum_{j=1}^{ck} m_j (1 - \hat{\pi}_j).$$

Then, they are put into g groups. Then Pearson chi-square statistic from g × 2 table of

observation and estimation are calculated (Hosmer, Lemeshow, & Sturdivant, Applied Logistic

Regression Third Edition, 2013). Under the null hypothesis that the model fits the data, the

quantity derived by the test follow the χ^2 distribution with $g - 2$ degrees of freedom (Paul,

Pennell, & Lemeshow, 2013). Thus, not rejecting the null hypothesis means passively admit that

the model fits the data.

Akaike Information Criterion (AIC). Akaike Information Criterion (AIC) is useful to

evaluate how well the model is fitted in the data and if the model is overfitting or not at the same

time. The smaller the value of AIC, the better the model is in terms of goodness of fit and the

complexity of the model. AIC is a relative indicator; thus, AIC value does not tell anything.

Instead, Two or more AIC values are compared and the smaller one is judged the better model. AIC is calculated by the following equation:

$$AIC = -2 \times L + 2(p + 1), \tag{6}$$

where L is the log-likelihood of the fitted model, shown in Equation 4, and $(p + 1)$ denotes the number of parameters estimated in a model. The smaller the AIC value, the better the model, in terms of both the goodness of fit and the number of variables (Hosmer, Lemeshow, & Sturdivant, Applied Logistic Regression Third Edition, 2013; Li & Nyholt, 2001).

Bayesian Information Criterion (BIC). Bayesian Information Criterion is quite similar to AIC. The only difference is that it penalizes the complexity of a model more severely. BIC is also better when the quantity is smaller. BIC is calculated by the following equation:

$$BIC = -2 \times L + \log N \, (p + 1). \tag{7}$$

Result

Model 1

As for Model 1, Table 3 reveals that age, gender do not have significant influences on explanation of the dependent variable with the p-values of .619 and .418 respectively. On the other hand, education of parents has p-value less than 0.01 which is quite significant. The estimated coefficient is 1.222, 95% CI [.592, 1.853].

Model 2

According to Table 4, in model 2, the number of children and ownership of household have significant effects on child education with $p < .001$. The estimated coefficients of those variables are -.440 and 1.618, 95% CI [-.661, -.220] and [.858, 2.321] respectively.

Comparison Between the Models

According to Hosmer-Lemeshow Goodness of Fit test, both Model 1 and Model 2 could not reject the null hypothesis that the model is fitted in the data, with *p*-values of $P[\chi^2_{HL}(8) >$ 5.228] = .733 and $P[\chi^2_{HL}(8) > 11.36] = .1821$ respectively. With respect to both AIC and BIC, Model 2 outperformed Model 1, which means Model 2 is explaining child school enrollment better avoiding overfitting.

<div align="center">

Discussion

</div>

Interpretation of Result

Several meaningful insights were obtained from the results of multiple logistic regression analysis. In this section, research results from the review of literature and the results obtained from logistic regression analysis are synthesized to interpret those results multidimensionally.

Gender

First, the analysis has statistically confirmed that in Hunza, gender is not a significant determinant of child education. Moreover, the overall school enrollment rate of girls is slightly higher than that of boys in the dataset used. From both review of literature and the data analysis, it seems true that people in Hunza are putting great emphases on female education.

Parents' Education

Data analysis has revealed that education of parents has impacts on child education, which is an interesting finding and was not directly drawn from review of literature. Even though it is certain that the importance of education is widely recognized, in cases that neither of parents have been given any education, it significantly maliciously affects child school enrollment. It is assumed that non-educated parents do not work for decent jobs and do not have enough money to educate their children. It also might be because such parents that have no real experience of

school life have few incentives to send their children to an unknown institution. It can suspect that they would rather let their children work and help the households.

Socio-Economic Status

It has been confirmed that in such households that the house is not owned by the house head, the odds of child school enrollment significantly decreases. As shown in Table 3, if a household possesses its own house, the odds of child school enrollment increases by 5.044, 95% IC [2.360, 10.181] compared with those that does not own their own houses, which is a significantly large difference. Although this tendency is neither special nor an astonishing fact, it does illustrate that there are still children who are left behind despite of mandatory primary and secondary education settings. Also, the number of children in a household has significant impacts on child school enrollment. Those households that have more children should be provided more supports.

Limitation and Further Analysis

In this paper, qualitative research as the review of literature and quantitative analysis with multiple logistic regression analysis are implemented. Throughout the research, there were several limitations that restrict certain analysis. In this section, those limitations are identified and behold the possible further analysis.

Data Availability

Data analysis can be implemented with only the available data; thus, lack of certain data is the largest hinderance. First and foremost, the target of the analysis in this paper is people in Hunza. However, the dataset only provides the district index, Hunza-Nagar, which is the combination of Hunza and Nagar. This is because those districts used to be one district and they became distinct districts in that year (Dunya News, 2015). It is preferable if it were possible to

separate them in analysis since those area quite different in terms of the outcome of AKRSP and their identities as discussed in review of literature section.

If panel data was available, transition could be analyzed. In this paper, such time series data was not used and therefore changes could not be investigated quantitatively.

More concrete socio-economic indicator is preferable. Ownership of household is a binomial variable and thus, it is not possible to depict concrete picture. With more concrete socio-economic indicators such as income, better analysis can be done.

In the review of literature, it was found that the large number of girls proceed to higher education. The dataset includes a variable of education level; however, it includes quite a few missing values. If the data is available, analysis not only about primary and secondary education but also higher education is possible.

The same is true for parents' education. Although the data set has parents' education level, it also includes a number of missing values.

Comparative Analysis Among Districts

Figure 2 shows the districts where the explanatory variable gender is not significant with Model 2 and Figure 3 is those districts' school enrollment rate by age and gender. It clearly shows that there is a regional tendency about gender parity. Investigating Figure 3, it is noted that in some districts, school enrollment is high regardless of age just like the case in Hunza. Other districts seem to have huge gender effects. Comparison between other districts is another meaningful analysis.

<div align="center">

Conclusion

</div>

"My goal is to establish a law firm from where people not only find counsels to fight their case but also to give legal help to women in my area regarding her legal rights," a female

respondent in a literature states with the optimistic hope and desire towards her future (Ali & Ali,

Empowerment Higher Education Nexus: Women Celebrating Change in Hunza, 2015).

Today, female Hunzakuts are aware of their rights, potential, and value. Among various

reasons behind such advancement, gravitation of religion is by far the most magnificent.

Hunzakuts are so pious that each individual interprets whatever Imam states in their own positive

way and strives hard to fulfil the religious duties, hand in hand with the fact that they are a

"minority within a minority" (Morrow, 2001) and ingrained somewhat gender-flexible culture.

It is also noteworthy that Hunzakuts not only followed the firman, but also somehow

singled out and embraced the more feminism-based interpretation of modernity autonomously,

which even Aga Khan had not envisaged at the beginning. The causes of such veering need

further research to be untangled.

Sen argues that empowerment of a person induces influences on economic and social

change:

> It is important to take note also of the instrumental role of capability expansion
>
> in bringing about *social* change (going well beyond *economic* change). Indeed,
>
> the role of human beings even as instruments of change can go much beyond
>
> economic production (to which the perspective of "human capital" standardly
>
> points), and include social and political development. … These instrumental
>
> achievements maybe ultimately quite important taking us well beyond the
>
> production of conventionally defined commodities. (Sen, 1999, p. 296)

Although previous literatures indicate some of the socio-economic changes, there are

still enough room for further empirical research.

Although data analysis has corroborated the gender parity in Hunza, it has also uncovered issues faced by Hunzakuts: financial hurdle. Relatively poor households and households with relatively the large number of children are struggling with their education.

As discussed in the review of literature, the orthodox perspective of education considers education as just an institution to produce productive people that efficiently function in societies and contribute to societies' economic development. The contemporary perspective of empowerment regards empowerment as the process of becoming such individuals. However, as long as people regards education and empowerment in such a human capital focused way, true freedom and happiness of people cannot be achieved. Education and empowerment need to be recognized through the feminist perspective and the capability approach. Fortunately, Hunzakuts interpreted the promotion of universal education from the feminist perspective and they appreciated it; however, it is not assured how long this attitude is going to last. As Hunza develop economically due to the enhanced education, people might forget the joy of being empowered, acquiring freedom and what happiness is.

As Sen argues, receiving education itself is one of the most important freedoms of choice that need to be protected, since an effective education enables individuals to expand the options to choose from. Nevertheless, data reveals that there still are children left behind. Now, giving hands to those children is a grave responsibility of civil societies. Those children are ones who are suffering most and who deserve the greatest happiness. Hunza is still in search of Shangri-La of freedom.

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Tables

Table 1

Deleted Rows

	Hunza		Pakistan	
Variable	Deleted Rows	Proportion	Deleted Rows	Proportion
School.Enrollment_NA	0	.000	0	.000
Gender_NA	0	.000	66	<.001
Parents.Edu1_NA	33	.020	10775	.042
Household.Ownership_NA	33	.020	4500	.018
Total	59	.036	13218	.052

Data Source: Annual Education Status Report Pakistan 2016

Table 2

Variables in Multiple Logistic Regression Models and Their Meanings

Variable	Meanings	Values
School.Enrollment	Whether or not the child is currently enrolled in a school	1: currently enrolled 0: not enrolled
Age	Age of the child	5 ~ 16
Gender	Gender of the child	1: Female 0: Male
Parents.Edu1	Whether or not at least one of parents have primary or more advanced education	1: Yes 0: No
Num.of.Child	Total number of children in the case's household including him/her	1 ~ 7 (in Hunza)
Household.Ownership	Whether or not the house is owned by household's head	1: Yes 0: No

Data Source: Annual Education Status Report Pakistan 2016

Table 3

Model 1 Estimated Coefficients

Variable	Coef	SE	z	p		95% CI
(Intercept)	2.784	.613	4.545	<.001	***	[1.627, 4.036]
Age	-.020	.047	-.421	.674		[-.113, .072]
Gender1	.216	.316	.684	.494		[-.405, .842]
Parents.Edu11	1.222	.320	3.823	<.001	***	[.592, 1.853]
Exponential Transformation						
(Intercept)	16.180					[5.090, 56.591]
Age	.980					[.893, 1.075]
Gender1	1.241					[.667, 2.322]
Parents.Edu11	3.395					[1.807, 6.382]

Note. Coef = coefficient estimated; *SE* = standard error; *z* = Wald test statistics; *p* = *p*-value; asterisks indicate the level of significance: '***'*p* < .001, '**'*p* < .01, '*'*p* < .05, '.'*p* < .1, ' '*p* < 1; *CI* = confidence interval

Table 4

Model 2 Estimated Coefficients

Variable	Coef	SE	z	p		95% CI
(Intercept)	4.060	.767	5.294	<.001	***	[2.614, 5.627]
Age	-.037	.047	-.790	.430		[-.130, .054]
Gender1	.274	.324	.846	.398		[-.362, .917]
Num.of.Child	-.440	.112	-3.930	<.001	***	[-.661, -.220]
Household.Ownership1	1.618	.370	4.373	<.001	***	[.858, 2.321]
Exponential Transformation						
(Intercept)	57.957					[13.656, 277.819]
Age	.964					[.878, 1.056]
Gender1	1.315					[.696, 2.501]
Num.of.Child	.644					[.516, .802]
Household.Ownership1	5.044					[2.360, 10.181]

Note. Coef = coefficient estimated; *SE* = standard error; *z* = Wald test statistics; *p* = *p*-value; asterisks indicate the level of significance: '***'*p* < .001, '**'*p* < .01, '*'*p* < .05, '.'*p* < .1, ' '*p* < 1; *CI* = confidence interval

Table 5

Goodness of Fit Test Result

Test	Model 1	Model 2
Hosmer-Lemeshow		
χ^2_{HL}	5.228	11.36
df	8	8
p	.733	.1821
AIC	369.232	350.757
BIC	390.175	376.935

Note. χ^2_{HL} = quantity derived from Hosmer-Lemeshow Goodness-of-Fit test; *df* = degree of freedom; *p* = *p*-value

Figures

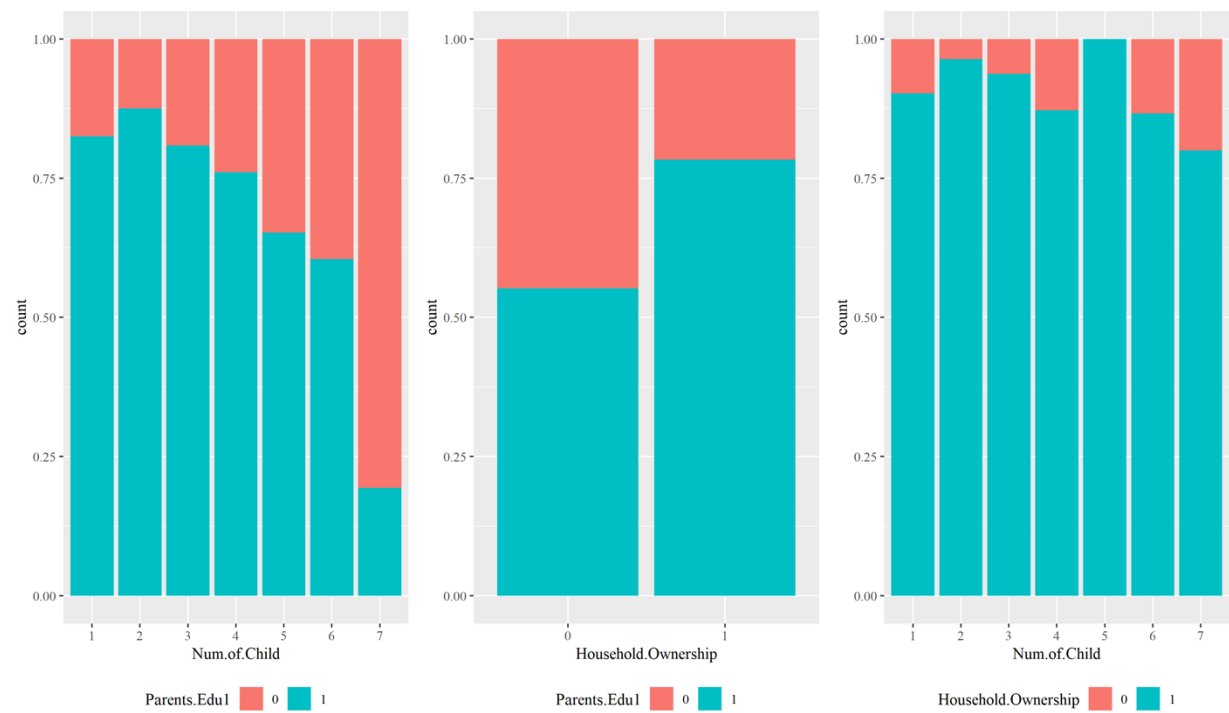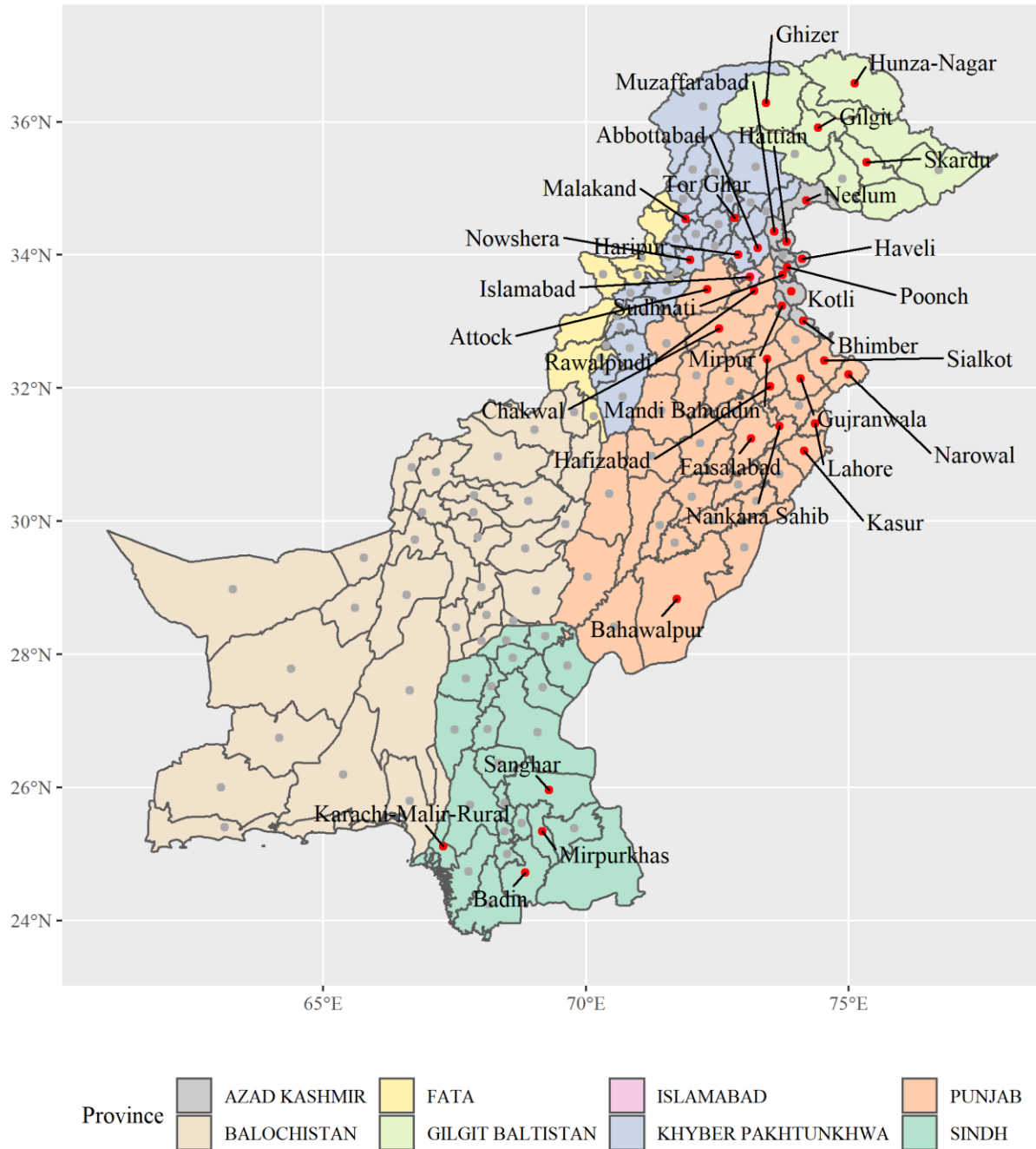**Figure 1**

Correlation among Variables

Figure 2

Districts Where Gender is Not Significant

Figure 3

School Enrollment in Districts Where Gender is Not Significant