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4/C, Eskaton Garden Road, Dhaka-1000

Phone: 880-222225996

E-mail: bea.dhaka@gmail.com

Website : www.bea-bd.org

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Editor's Note

The Bangladesh Journal of Political Economy (BJPE) accommodates only the selected papers submitted for publication. All the papers are duly reviewed by internal and external reviewers with remarkable endurance and finally concurred by the Editorial Board for publication.

The contemporary world is governed by a small fraction of people and policymakers. This age is characterised by many things detrimental to the existence of organised human society. These include rising inequality (wealth, asset, income, health, education), multidimensional poverty, various forms of fundamentalism and extremism, war and war-like situations, weaponisation of economies, climate catastrophe, artificial intelligence, and financialisation of the economy politics, unjust globalisation, authoritarian regimes, xenophobia. For her existence and progress, the organised human society shall endeavour to do everything to eliminate all the above-stated. In doing so, we must search for enlightened persons and institutions who will stress a new arena of building a decent society and explore how to develop a unique way of resisting the assaults of those who think for the ordinary people and accordingly mould the ideas of transforming human deprivation into humane development and related activism.

Interlacing more implicative ideas and writing with a deep understanding argues for a compelling and compassionate study of the ground realities that will rightly shape the course of human development history. We are hopeful that this journal will help monitor the current global debates in development thinking and practice from a broad-based interdisciplinary perspective. Besides, it will keep arduous and interested writers in touch with the cutting edge issues of lasting human development, thinking action and sound strategies. More importantly, we are confident, the papers are censorious, innovative, and thought-provoking, written with the best endeavour by a galaxy of eminent scholars and young, dynamic and talented authors. This journal, as expected, will be an essential resource for social science faculties and research institutions, international development agencies and NGOs, policymakers and analysts, graduate teachers and researchers who have always intended to build up a decent society.

We express our heartfelt gratitude to the credible authors, reviewers, and members of the Editorial Board of the Journal and others who have toiled much to raise the standard of this issue.

Abul Barkat, PhD

Editor, Bangladesh Journal of Political Economy
President, Bangladesh Economic Association

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Religious Fundamentalism: Towards a Political Economy Theory

Abul Barkat*

Abstract

This article attempts to develop a Political Economy Theory of religion-based fundamentalism, related extremism, and militancy. The religion used to construct the theory is Islam, and the space is primarily Bangladesh. However, the ground could have been any religion and the space, any country. In developing the Political Economy Theory of religion-based fundamentalism, the methodology deployed consists primarily the historical materialism, dialectics of induction and deduction methods, and synthesis after analysis. In line with this methodology, the relevant things were analysed and presented as follows: (1) appearance and essence of religious fundamentalism and associated extremism, (2) causalities of religious fundamentalism— both internal and external, (3) Evolution of Islam in Bengal (and Bangladesh)— the transformation from liberal to political Islam, (4) the essence of economics and politics of Islamist fundamentalism— both qualitative and quantitative, (5) development of Jihadism, (6) understanding the psychological basis of religion (Neurotheology) in conjunction with its economics and politics. Finally, it is argued that today's unipolar world is steered by the US-dominated Unitarian system of imperial ambitions, which subordinates (or tries to subordinate) all internal factors and causes. It leads to a global structure where external and internal forces form

* Professor and former Chairman, Department of Economics, & Professor and Founding Chairman, Department of Japanese Studies, Dhaka University, Bangladesh.
E-mail: barkatabul71@gmail.com

a single cause— form with two apparent differences. The internal causal forces are subjugated to the prime external force— the US imperial ambition aiming at establishing absolute ownership and control over critical strategic resources of the globe, namely land, water, energy, fuel, minerals, and space. Any means for the imperial actors and their subjugated agencies would be appropriate to maintain this balance. Here comes the pretext of religion as one of the most compelling historical tools. Therefore, organised religious fundamentalism is an integral natural outcome of imperialistic expansionism.

JEL Classification P16 · Z12 · N3 · F54 · B5 · D63 · D74 · E02

Keywords Religion and economy. Religion and economics. Political economy of religious fundamentalism. Imperialism and economies of fundamentalism. Cultural economics: religion. Economic history and religion. International political economy: Imperialism. Heterodox approaches to economics. Inequality and conflict. Institutions and Macroeconomy.

1. Introduction

The *political economy*¹ of religious fundamentalism is a relatively new area of research not yet adequately addressed in the global political economy literature. This article purports to construct a General Political Economy Theory of Religious Fundamentalism (and associated extremism and militancy).

The term “fundamentalism”—as the religion’s reaction against scientific and

1. In this article, the categories ‘economics’ and ‘political economy’ are used interchangeably. Today’s “economic science”, in its origin, was known rightly as “political economy”. All the writings of the 17th to 19th century classical economists were titled political economy. For example, the title of the book by the classical economist Sir William Petty was *Political Arithmetic* (written in 1664 and published in 1690) and *The Political Anatomy of Ireland* (published in 1691), and that by Sir James Stuart was *An Inquiry into Principles of Political Economy* (published in 1767). Similarly the others were as follows: Adam Smith— *An Inquiry into the Nature and Causes of Wealth of Nations* (published in 1776), Jean Baptiste Say and Thomas Robert Malthus— (same title in both) *A Treatise on Political Economy* (published in 1803 and 1817, respectively)), David Ricardo— *Principles of Political Economy and Taxation* (1817), Leonard Sismondi- *New Principles of Political Economy* (1819), John Stuart Mill- *Principles of Political Economy* (1848), Karl Marx— *A Contribution to the Critique of Political Economy* (1859) and *Das Capital: Critique of Political Economy* (1867). A detailed analysis of the essence of transformation of the discipline of Political Economy in to Economics may be seen in the work of Barkat (2017a), *Poverty of Philosophy in Economics* (Arthonity Shastree Dorsoner Daridro; in Bangla).

secular culture— may not be a perfect one, but it is a helpful label for movements that, despite substantial differences, bear a strong family resemblance. Fundamentalism is a controversial category, but an objective meaning can be given to it in line with the following: *embattled faith; beleaguered tradition; withdrawal from the mainstream; creation of counter-culture; transformation of mythology into ideology; cultivation of theologies of rage, resentment, and revenge; the refusal of dialogue necessary for peace and continuity; defending beleaguered tradition using ritual truth in a globalising world that asks for reasons* (Barkat 2016a).

In essence, *religious fundamentalism* and associated *extremism* are a form of militant piety in religion. Fundamentalism is an embattled faith. Fundamentalism is evident in both great monotheisms (Christianity, Islam, and Judaism) and in other religions (Buddhism, Hinduism, even in Confucianism which is not a religion *per se*). The Muslim and Jewish fundamentalisms are not much concerned with doctrine, which is an essentially Christian preoccupation.

'Fundamentalisms' all follow a specific pattern— they are embattled forms of spirituality, which have emerged as a response to a perceived crisis. They are engaged in conflict with enemies whose secularist policies and beliefs seem inimical to religion itself. Fundamentalists do not regard this battle as a conventional political struggle but experience it as a cosmic war between the forces of good and evil. They fear annihilation and try to fortify their beleaguered identity employing a selective retrieval of certain doctrines and practices of the past. They often withdraw from mainstream society to create a counterculture to avoid contamination, yet fundamentalists are not impractical dreamers. They have absorbed the pragmatic rationalism of modernity. Under the guidance of charismatic leaders, they refine these 'fundamentals' to create an ideology that provides the faithful with a plan of action (Armstrong 2001). Fundamentalists— by turning the *mythos* of their religion into *logos* and transforming their complex mythology into a streamlined ideology— cultivate theologies of rage, resentment, and revenge (Barkat 2018). Fundamentalism is a refusal of dialogue in a world whose peace and continuity depend on it.

2. Literature on and Manifestations of Religious Fundamentalism

The Political Economy Theory of Religious Fundamentalism is not available in the relevant literature. Even the terminology 'Economics of Fundamentalism' is of the most recent origin. The author coined it in 2005, which included, among others, the necessary estimations about the size of the 'economy of fundamentalism' by broad sector-wise line items (see Barkat 2005a, 2005c, 2005d). However, no one since then used the term, let alone estimating and re-estimating the size and trends.

In the last 40-50 years, many scholars came up with different explanations and analyses on the different dimensions about the origins, causality, and implication of religions-based fundamentalism. However, meaningful treatment of religious fundamentalism from the viewpoint of political economy was almost not in existence. Most relevant of those scholars and their writings are as follows (only the name of the author with the title and year is mentioned): D. L. O'leary (1923), *Islam at the Cross Roads: A Brief Survey of the Present Position and Problems of the World of Islam*; G. H. Hansen (1979), *Militant Islam*; Emanuel Sivan (1985), *Radical Islam: Medieval Theology and Modern Politics*; Robin Wright (2001), *Sacred Rage: The Wrath of Militant Islam*; Bruce Lawrence (1995), *Defenders of God: The Fundamentalist Revolt against the Modern Age*; N. Levtzion (Ed. 1979), *Conversion to Islam*; Jakob Landau (1990), *The Politics of Pan-Islam: Ideology and Organization*; William Montgomery Watt (1988), *Islamic Fundamentalism and Modernity*; Johannes Janssen (1997), *The Dual Nature of Islamic Fundamentalism*; John Esposito (Ed., 1997), *Political Islam: Revolution, Radicalism or Reform?*; Saeed Abul Ala Maududi (2000), *The Political Theory of Islam*; Talal Asad (2003), *Formation of the Secular: Christianity, Islam and Modernity*; Barkat Abul (2005a, 2006a, 2006c), *Economics of Fundamentalism in Bangladesh*; Samir Amin (2007), *Political Islam in the Service of Imperialism*; Ayaz Ahmad (2008), *Islam, Islamism and the West*; Bassam Tibi (1998), *The Challenge of Fundamentalism: Political Islam and the New World Disorder*; Yusuf Choueiri (1990), *Islamic Fundamentalism*; Hamid Dabashi (2008), *Islamic Liberation Theology: Resisting the Empire*; Graham Fuller (2003), *The Future of Political Islam*; Richard Dawkins (2006), *The God Delusion*; Brahm Geoffrey and Tariq Madood (Eds., 2008), *Secularism, Religion and Multicultural Citizenship*; Leila Ahmed (1992), *Women and Gender in Islam: Historical Roots of a Modern Debate*; Tariq Ali (2002), *The Clash of Fundamentalisms: Crusades, Jihads and Modernity*; James Piscatori (Ed., 1983), *Islam in the Political Process*; A. Crooke (2009), *Resistance: The Essence of the Islamist Revolution*; M. Islam (2015), *Limits of Islam: Jamaat-e-Islami in Contemporary India and Bangladesh*; Barkat Abul (2013b), *Political Economy of Fundamentalism in Bangladesh*; Barkat Abul (2015a), *Imperialism and Religious Fundamentalism: A Treatise on political Economy with reference to Bangladesh*; Barkat Abul (2018), *Fundamentalism in Bangladesh: External and Internal Dimensions of the Political Economy of Militancy*.

In the relevant research literature, many opinions are expounded about the relation of 'war' with 'religion' or relation of conflict-collision-friction-revolt-revolution with 'religion'. Most of these 'opinions' indicate 'religion' as the 'root cause' behind war-collision-friction-revolt-revolution. For the large part, these

convictions uphold “religious factors as the root cause” of these sequels. A few discerns that “religion creates a favourable environment for these”. In the context of contemporary Iraq, Libya, Palestine, and Afghanistan— Noam Chomsky argued that imperialism (especially the US imperialism) had created a ‘base’ or ‘background’ for creating Islam religion-based militancy.

There is no such research where it is persuaded that ‘exploitation’, ‘imperialism’, and “epicentre-imperialism— the US imperialism” are the ‘main reasons’ behind the rise of religious fundamentalism and escalation of related militancy. Hence, the critical point is that no one has strung the whole matter into a general political economy theory by giving due consideration and analysing these causal relationships associated with its sources. It is most likely that no one has profoundly realized even the indispensableness of complex theoretical work of suitable formulation until now. Most have interpreted religion-based or religious fundamentalism as an instance of fundamentalism (in the sense of ‘example’) and its manifestation or ‘appearance’. Most have tried to comprehend religious fundamentalist militancy merely through its day-to-day visible revelations. The interpretation and analysis of these views have never been made with necessary scientific rigour.

It has become a matter of everyday life that we are listening and watching about many issues related to sectarianism, communalism, religious fundamentalism, and fundamentalist militancy in the print and electronic media. There are abounding variants of these visible forms or manifestations. There may be a short but essential list of what we have noticed and noticed, frequently, as glaring examples and manifestations of all these forms at home and abroad. Some of these are as follows:

1. The Socialist Soviet Union invaded and provided military support to establish socialism in Afghanistan. Following that, the US imperialism, in collaboration with Pakistan through the US Central Intelligence Agency (CIA), created their armed Talibanism, created Mullah Omar-bin Laden and similar others; occupied Afghanistan; the reign of the war-lord and drug-lord expanded. On the contrary, it is also said that in the decade 1970s, in the border area of the then Soviet Union in the Afghanistan-Pakistan border (mainly in Khyber Pass region and Peshawar region), including Afghanistan, different types of madrassas, including Islamic militant training centres were established with the direct assistance of the CIA. To the Soviet Union, this was the pre-emption to invade the Soviets (Central Asian Republics) in the Afghan border region or the extirpation of the socialist social system. For these reasons, the Soviet Union, including forming a new government,

provided military support to Afghanistan. It implies that, on the one hand, the whole thing, such as the Soviet Union's effort to protect the socialist world system and on the other hand, create Islam religion-based militancy along with the supply of military force to resist any pursuit so that in no way, socialist form of state can be created in Afghanistan as intimidation for US imperialism. In the latter case, Islamization was one of the powerful anti-communist strategies of the United States.

2. A section of well-armed Muslims belonging to the Islamic States of Iraq and Syria (ISIS), known as the Islamic State (IS), has been involved in the war in some countries, including Syria, Iraq, and Yemen. The name of that war is 'Jihad.' Through Jihad, either they want to hold a particular area in their possession or occupy the state itself. All types of partition, including the Shia-Sunni partition and geo-nationalistic (in the case of Afghanistan, for example, those of Pashtun, Kazakh, Uzbek, Nuristani, Aimakh, Kazak, Turkmenistani) among the Muslims, are being utilized in these matters. It is worth mentioning that in using Islamic State (IS) in their activities, the US intelligence agency (CIA) has innovated the "End of the Time Narrative" (ETN). The ETN - as claimed and propagated by the CIA— is the last words of the Prophet Hazrat Muhammad (SAW) about the description of the last hours of the world. ETN claims that immediately before his demise Prophet Hazrat Muhammad (SAW) has said the following: "(1) Only Sunnis are real Muslims; the Shias and Ahmadis are not real Muslims; (2) the last bell of the earth will ring when the Westerners invade the city of Dabiq in northern Syria, and then the world's best warriors- the Mujahidin will start fighting against them".² It is worthy of note, as claimed according to ETN, during the end of his life in the city of Dabiq, Prophet Muhammad (peace be upon him) said about ETN: the city of Dabiq is now known as IS headquarter and at the same time, "Dabiq" is also the name of IS website.
3. In Israel, the Jewish religion-based militancy is indiscriminately occupying the land, including the killing of Palestinian Muslims. This truculence is continuing nearly for the last one hundred years.

2. For details about 'End of the Time Narrative', see: Kirsten E. Schulze, 2009, "Indonesia—The Radicalisation of Islam"; Sahih Muslim, The Book of Tribulations and Portents of the Last Hour, Chapter: The Conquest of Constantinople, book 54, hadith 44, 'The Emergence of the Dajjal and the Descent of 'Eisa bin Mariam', <http://sunnah.com/muslim/54-44>.

4. In Pakistan, the destruction of institutions, including killing people in the name of religion, has become a routine matter.
5. In the name of religion, the India-Pakistan conflict over the Kashmir issue has continued for over 70 years.
6. In the northern province of India, Hindu fundamentalists (BJP), after wielding power on the grounds of religion, have banned eating cow meat by the Muslims (in 2017). Till now, hundreds of people have been killed on this issue. Not only that, as the ruling BJP's ideological guide organization RSS aspires to make India a "Hindu State". there is an attempt to make someone the Honourable President of the country nominated by RSS. However, in this regard, they are also bringing the low Caste-Dalit community to the forefront with a political purpose.
7. In the United States, the 'red neck white' belonging to the Christian religion has declared a crusade against those who belong to Islam (President Donald Trump categorically and openly says these).
8. In the Muslim-dominated Uyghur region of the People's Republic of China, wearing yashmak by the girls has been announced a ban.
9. The atrocity done to Muslims and continuing in the Arakan territory of Myanmar is genocide and crime against humanity. It is done using Theravada Buddhist religious fundamentalism. Notwithstanding, Buddhism says, "Killing a living body is a sin."
10. Fundamentalism is escalating in Bangladesh. Religion-based fundamentalism has created its economic basis— the Economic of Fundamentalism (I have presented in public since 2005). The fundamentalist militants have killed many people, destroyed many institutions; strengthened the economic basis of fundamentalism; suicidal women militants are not hesitating to sacrifice their lives (children are also not spared); foreigners are also being murdered by the militants (1 July 2016, Holly Artisan Bakery); now 133 fundamentalist militant organizations are functional; one could hardly find a person who was not afraid of life seeing the way the Hefazate Islam captured Dhaka city on 5 May 2013. As per the 'political demands (!)' of the Hefazate Islam, the content in the textbooks has already changed. It is accelerating the process of Islamization of Knowledge (IOK). The education of Quomi Madrassa is being accorded an equal status of higher degree; the voice is raised for demolishing the sculpture of Greek goddess erected in front of the country's highest court. On the whole, it is inevitable that after this, all secular and folk cultural traditions will be evicted; animosity to women

and anti-democratic evil forces are increasing - these are accelerating religion-based sectarianism. In a nut shell, the inherent power of secularism is curtailed, the task of occupying state power in the name of religion- Islam is expanding rapidly.

11. Persecution of Muslims in the southern part of Thailand is a history of many days. As a retort, Muslims are also using weapons there. It is said that al-Qaeda (alternatively, al-Qaida, a transnational extremist Salafist militant organization founded in 1988) and IS have strong links with these incidents.
12. In Yemen, due to suicide bombing, women and children are killed. Recently, the most brutal incident happened in Yemen in Mukalla City on 27 June 2016. On that day, 38 innocent women and children were killed by suicide bombing.
13. Due to a bomb attack at Turkey's Kamal Ataturk Airport, 45 people had to give their lives (28 June 2016).
14. In the name of religion, bombing attack has been made at different times in the different regions of Malaysia.
15. In the Philippines, the 'Moro' militants have become desperate to form a sharia-based state.
16. In various cities, including Baghdad of Iraq, bombing is now a regular occurrence. The latest major catastrophic incident took place on 3 July 2016 at the busiest supermarket in Baghdad. On that day, at midnight, in addition to the killing of 308 people, hundreds of people were injured by a car bomb attack.
17. In three cities in Saudi Arabia, suicide bombings took place on 4 July 2016.
18. In several places, including the police station bombing in Indonesia on 5 July 2016.
19. With thirteen (13) conditions, a sanction was imposed on Qatar's natural gas-rich Middle East State. Instigated by the United States, the sanctions have been imposed by four border countries of Qatar, namely the Kingdom of Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain. After that, the United States had a large-scale arms trade with Qatar and took a share of gas and oil; moreover, the United States has already built a vast airbase in Qatar. Notwithstanding, one of the major allegations against Qatar is that the country supplies arms to IS, and the office of the Afghan Taliban has been set up in Qatar. On this, Qatar's King Sheikh Tamim bin Hamad Al Thani confessing to the western media, has said, "*Yes, the Taliban have been allowed to establish offices*

here in Qatar. However, we have done it complying with the request of the US President. We did not invite the Taliban. The United States wanted to have a venue for dialogue with the Taliban and requested us to be the host country of this dialogue? We have become the host of this dialogue at the request of the United States” (for details, see 29 October 2017 interview to CBS News correspondent Charlee Rose by Qatar’s King Sheikh Tamim bin Hamad Al Thani).

20. Using religion, including Islam and other religions, has become relatively common in countries ruled by autocratic regimes and monarchs.
21. Religious and/or communal conflicts-infights-riots among tribes and clans are now a common form worldwide.

After listing one of the many appearances and manifestations of religion-based fundamentalism, it would be necessary to note two things. First, the intensity and depth of religion-based conflicts are high in the countries and territories endowed with rich natural resources (land, water, forest, minerals) and have geo-political advantages. Second, some of the examples cited above are only a few of the hundreds of examples in this regard, and perhaps many more critical examples have been inadvertently omitted. The reasons for this are more important than the examples *per se*. Here, in terms of causality, two things need special attention. First, we see the example—these are only incidents, not the cause of the incidents. These are the external or visible objects of the main object. The appearance of the object and its essence are not the same. Second, what is the causality of these visible events? The question is straightforward, but the answer is complicated and contentious.

Among the things that are often mentioned as an outward-looking reason for what I said above are: issues originated from economic inequalities, issues originated from social inequalities, issues originated from frustration-despondence, issues originated from moral values, issues originated from repugnance, issues originated from cultural estrangement, isolation, and exclusion, issues originated from an identity crisis, issues originated not only in this world but also issues concerned with after-life. Whatever is presented above is not the root cause for the emergence and development of religious fundamentalism and fundamentalist militancy. The tendency to forward these causes as the ‘main cause’ is quite popular. In my view, these are not causes - they are derived from ‘causes’. and the ‘real cause’ is more intrinsic that needs to be searched much deeper— under the carpet.

3. Understanding Religious Fundamentalism –the Cause-Effect Philosophy

'Effect' resembles the cause or consequence of cause. Since we are talking about 'cause' and 'effect'— it is imperative to mention a few cardinal points before presenting our (my) original points, including its analysis in determining the cause and consequence of religious fundamentalism and related militancy. The subject here is philosophical.

The pertinent issues of philosophy are discussed below. The inevitable relationship between two objects or two phenomena is the causal relation. In this case, the phenomenon (or event or incidence) that occurs earlier is the 'cause' and which latterly happens as its outcome is the 'effect'. Despite that, the cause-effect relation is a relation of two events or two objects, it does not necessarily occur as an effect or a cause. For the sake of convenience of our realization, we try to think of two events separately from other events. However, in a real sense, the event we call the effect co-occurs as the effect of another event, and what we call a cause that also takes place as an effect or result of another event. The reality is that a holistic causality binds the whole universe of matter (object). Therefore, the overall cause of an effect is more significant than a specific cause. On that ground, it is possible to understand the specific cause of an event based on its overall cause. The epistemology of the science of causality is that the causal relation between events or objects is not a matter of imagination of our mind; the causal relation is not an object or event, so the relationship is not visible. Since we intend to understand causation, it is imperative to note that correlation failing to establish causality is the death of causation (Pearl and Mackenzie 2019).

It is necessary to make the above philosophy more comprehensible. The issue may not be as difficult to comprehend as it appears. An example of the relationship between fire and smoke would suffice. Fire and smoke— both we can see in our eyes. However, we cannot see the causal relationship between fire and smoke; we cannot see that the fire is the cause of the smoke, and the smoke is the effect or result of the fire. So, the philosophical empiricism that must be acknowledged in constructing the formula for a political economy related to "the rise and spread of sectarianism, fundamentalism, and militancy" is that causal relations are not an object; it is not even human imagination. The event of action-reaction of an object is not a matter of human imagination, but this action-reaction forms the causal relation of the object.

What we see with an open eye is its outward appearance or form. That may be the external condition of the object, maybe of the event, and maybe of the animal world, including plants of nature. None of these, which we see in the open eye or by the sense-perception of how these things are presented before us or become visible, are the essence of the subject (i.e., object, event, nature) or

content. Here lies the real difference between cause and effect or causal and consequence. Nonetheless, the subject is generally called philosophical it is epistemological– which applies equally to any discipline.

Let us assume the context of a ‘culture of injustice’. Is it the reason that people become the victim of injustice, i.e., they are deprived of impartial judgment and proper justice, judgment in a particular society, as because there are problems in judicial law (?) and/or judges are not competent in judicial matters and/or plaintiff-defendant (accused)-witness tells a lie or conceal the truth and/ or to deliver justice there is limited power in the hands of judges and/ or judge feels embarrassed in making justice and/or judge do not feel any attachment-aversion? None of this is a natural barrier to impartial judgment, proper justice/judgment, and legal justice. As a matter of rule, the law works against the poor. It works much rapidly when the poor-weak farmer (the powerless), who fails to repay a small amount of Tk 10,000 as agricultural loan, is tied to his waist with a rope in a certificate case and taken to the police station the daylight and sent to the jail. After half a century of our liberation war–this is an excellent ‘justice’! However, when someone is misappropriating hundreds of thousands of millions of Taka from state-owned banks moves boastfully-safely-unperturbed-freely home and abroad–is he (or they) brought under trial? The simple answer is: We cannot try them. It is because the real exploiters at the international and national levels have collectively created a system of impenetrable rent-seekers – the agents of the system who do not create any wealth by themselves but only grab the wealth created by others. State-government-politics is a loyal, subordinate (enslaved person) entity of that rent-seekers system. In an external sense, the rent-seeker system originated from exploitation is not, however, visible. Only visible is fundamentalism and fundamentalist militancy. Therefore, it will not be possible to escape the discussion, which wastes time if the cause and effect philosophy is misunderstood or confused. Also, it will not be logical.

As discussed above, generally, the same concept applies to everything else–‘fundamentalism’, ‘sectarianism’, ‘fundamentalist militancy’, ‘killing people using petrol bombs’. Some people decided that they would host the flag of religion very high and fight for the religion if necessary, make a crusade to form a religious state, kill people–none of this is the real reason for the emergence and spread of sectarianism or fundamentalism or fundamentalist militancy. All these are visible, external manifestations and appearances of the actual reason (the reality), and the reasons lie much beyond manifestation and are deeply ingrained.

As stated earlier, the causal relationship is not an object, and a causal relation is not even our imagination. The causal relation arises from the action-reaction of the object and is related to the whole; the occurrence of the action-reaction is not a matter

of our imagination. To investigate, on the one hand, from the slave age through the feudal age through modern capitalism, it will have to go at the root of the political economy of the world dominance of US imperialism. On the other hand, by moving from the local through the global war, it is to know without the spell of infatuation the true history of the aim-purpose of militarization of space including the whole universe (the reader should not think that I am unaware of things of substance beyond political economy). Moreover, that history of the political economy of the roots will tell that exploitation is the real cause of the economic-political-social-cultural-ideological war of the US imperialism aspiring world dominance spreading from local to a specific part of the region, from specific region to state, from state to alliance of states. The cause is 'exploitation'— more exploitation; even without any material production, exploitation by using 'intelligence' and 'power' which, in essence, ultimately is a matter of the "rent-seeking system".

The construction of political economy concerning the reasons behind religious fundamentalism and fundamentalist militancy probably needs a much deeper inquiry. Because, on the one hand, there exist exploitation-led poverty, discrimination, deprivation, disparity, inequality; on the other hand, ignoring the rule of nature-concentration of wealth (income, asset, health, education) in the hands of a few people. All this causes enslavement of our mind and cognition system primarily by religion-based myths. Many of us, even whom we recognize as enlightened people, say 'a man is poor because he is poor', 'a man is poor because he is not industrious', 'a man is poor because he is not economical', 'a man is poor because he is not intelligent', 'a man is poor because he is lazy', 'a man is poor because he is disorderly and undisciplined', 'a man is poor because he is knowledge poor'. All these 'idea-innovations' are different types of unethical and completely nonsensical and false 'poverty theory' aiming at belittling people. This thinking bears an inseparable relationship with "religion" and "religion-based militancy".

We listened to a story about our original sin (!) behind the poverty of the poor and wealth of the rich. As Karl Marx maintained, the mythical story of original sin goes like this: "*Adam bit the apple, and thereupon sin fell on the human race. Its origin is supposed to be explained when it is told as an anecdote of the past. In times long gone by, there were two sorts of people: the diligent, intelligent, and above all, frugal elites; the other, lazy rascals, spending their substance, and more, in riotous living. The legend of theological original sin tells us certainly how man came to be condemned to eat his bread in the sweat of his brow; but the history of economic original sin reveals to us that there are people to whom this is by no means essential. Never mind! Thus it came to pass that the former sort accumulated wealth, and the latter sort had at last nothing to sell except their own skins. And from this original sin dates the poverty of the great majority that,*

*despite all its labour, has up to now nothing to sell but itself, and the wealth of the few that increases constantly although they have long ceased to work. Such insipid childishness is every day preached to us in defence of property. M. Thiers, e.g., had the assurance to repeat it with all the solemnity of a statesman to the French people, once so spiritual. But as soon as the question of property crops up, it becomes a sacred duty to proclaim the intellectual food of the infant as the one thing fit for all ages and for all stages of development. In actual history it is notorious that conquest, enslavement, robbery, murder— briefly force— play the great part. In the tender annals of Political Economy, the idyllic reigns from time immemorial. Right and ‘labour’ were from all time the sole means of enrichment, the present year of course always excepted. As a matter of fact, the methods of primitive accumulation are anything but idyllic”.*³ It might sound good to listen to these ‘apparently’ unworthy conversations. However, with these, it is impossible to construct the theory of political economy (general formula) of religious fundamentalism and related militancy—anybody can think these. Nonsensical thinking gives birth to another nonsense. As it continues, the extended reproduction of nonsensical thinking continues. Arguably, now we can come to the context of constructing related theory. Before that, it might be of some use to listen to what philosopher Bertrand Russell has said: *“One of the gravest defects of religion is the fact that it can be used to keep the poor contented with their lot, which is very convenient for the rich.”*

Religious fundamentalism, fundamentalist militancy, sectarianism, absence of justice or culture of injustice, criminalization (economic, political, social, cultural), maladministration and lousy governance, anarchy, tyranny, autocracy, despotism, bribery, corruption, poverty, discrimination, inequality— none of these are an isolated, fragmented and compartmentalized issue. If each is treated as a different notion (in the sense of category or idea), then each is interrelated. The structure of the theory of the political economy that I have tried to construct inevitably follows the basic argument that although each of these notions seems to be an apparent cause of the other, in a real sense, ultimately it is not the cause it is instead a resemblance of the cause. For instance, it is often thought that ‘poverty-discrimination-inequality’ is the leading cause of ‘religious fundamentalism’. It is not right (and not even wrong), even not vice versa. Judging from the standpoint of the relationship between fire and smoke that I

³. For greater details about the so-called primitive accumulation, see Karl Marx, *Capital*, Volume 1, Part 8. (Marx, Karl. *Capital: A Critical Analysis of Capitalist Production*. Volume 1: translated by Samuel Moore and Edward Aveling, pp. 50-502, Hertfordshire: Wordsworth Editions Limited).

spoke about earlier, these notions of smoke are not the cause but rather the result of the cause, where a fire is a cause. So, in this case, the logical question arises—what is the reason for “poverty-discrimination-inequality”? In the final judgment, that reason will partly be the primary determinant—the leading cause of emergence, development, expansion, conflict-collision of all the relevant notions, including religion-based fundamentalism and fundamentalist militancy. Perhaps that is why Noam Chomsky says, “*One way for us (the USA) to reduce worldwide terrorism is to stop engaging in it.*” Furthermore, Howard Zinn says, “*Suicide terrorism stops when we (the USA) stop intervening abroad.*”

In my view, the primary determinant or regulating cause behind the emergence, rise, and development of religious fundamentalism (and associated extremism and militancy) is ‘exploitation’— the exploitative capitalist free market structure. However, this form of exploitation is not the same as the traditional Marxian form, where the main factor is ‘industrial capital’. This form is quite different, originating from ‘rent seeking’ under the financialization of capital. The financialised capital has divorced traditional politics— it is no longer subservient to politics, instead of the opposite— politics has become subservient to financialised capital. Another distinctive dimension is that although this exploitation process is indigenous, it is no longer bound within the home country; it is international. On the one hand, the epicentre-imperialism US’s absolute predominance over the world, such as this exploitation (that is, cause); on the other hand, the consequences or retribution arising from exploitation serve as a powerful influencing and triggering factor. So, in the final judgment, exploitation and appropriation of resources produced by others and to create alienation and expansion of this exploitation is the root cause of emergence, development, and expansion of sectarianism, religion-based fundamentalism, and fundamentalist militancy in the society.

As to how does this whole process works in society would be as follows:

1. Capitalist rent-seekers invest money-wealth-power-influence as capital.
2. The purpose of this investment is to expand all related capital and to keep the exploitation system self-expanding at any cost by appropriating (that is, by exploiting) the outcome of the invested capital (surplus). Here, the self-propagation or self-expansion of capital occurs, and as a result, the capital owner becomes more vital than before.
3. Capital is invested, from all ideologies to ideological institutions representing the societal superstructure. These institutions include State legislatures, judiciary, executive department, media, religious ideology, related institutions, political, economic, and socio-cultural organizations serving the interest of all forms of capital subservient to financialised

capital. This process does not stop at any stage; it continues. It is a continuous or intermittent process crossing various stages of circulation-in-perpetuity. If this process stops, the outcomes of exploitation of the rent-seekers or the various means, such as sectarianism, religion-based fundamentalism, militancy, will cease and gradually collapse. If the process slows down, the speed of retribution or consequences will also decrease, and it will gradually become languid and lose strength. Although the whole thing is similar to Karl Marx's "Circulation of capital, including its metamorphoses, rotation, and turn-over", because of different features of capitalistic development during the period after Marx, rent-seekers of financialised capital will be included with this (about which Marx did not speak much).

All types of crazy people can be found among the capitalist-businessman except one. No such single crazy person can be found who wants to get the same amount of money in return (that is, USD one million) as an outcome of which he regularly (as a general rule) invests (suppose, USD one million) as capital. The general argument is that if he invests USD one million, he would like to get more than USD one million (certainly not equal or less) as an outcome/return of investment. How will he get more money than what he invests, where to get it, what to do to get more? To get it, he will have to purchase such a commodity by the money he spent as capital, which can create more value than its own value. Take, for example, the owner of industrial capital. Indeed, in this case, in the present world, a good example is the 'capital of military-industrial complex' and 'rent-seeking' capital.

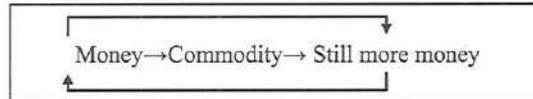
As a buyer, the owner of the capital will first come to the market with money; buy labour force (generally called labour) and raw materials for production, including production machinery. Machinery and raw materials of production do not have such inherent quality or characteristic that they can create more value than their own value. They can transform raw materials; the form changes, but the value does not change (increase or decrease). In this case, if purchased, the only product whose value increases is the labour force that can generate more value than its own value (that is, more than wages; wage is the price of labour-power). The additional value, i.e., the surplus value, is created in production, but that is precisely realized when the capitalist will bring his product (whose value is hidden in the surplus value as a necessity for exploitation) to the market seller. After that, he will return to the market as a buyer. The process of buyer-seller, seller-buyer, buyer-seller will continue. So, at first, he is the buyer, then the seller, and then the buyer again. As a buyer, he will first convert his money capital into productive capital (the first phase of the rotation and metamorphoses). Then, in

the production process, the value of the productive machinery and the raw materials included in the produced commodity, workers transform it by their labour and create new value, including the reproductive value and surplus-value of the labour force. In the second stage of the rotation of capital, the productive capital of the first phase will be transformed into commodity capital. Then, in the third stage of the rotation of capital, the capitalist will sell the product in the market not as the buyer but as the seller. He will realize the surplus value generated in the production process. In this case, the commodity capital of the second stage of the rotation will again be transformed into the money capital of the first stage. However, money in the last stage will include surplus value, which the capitalist will appropriate, and this is exploitation—to continue this exploitation process is the inherent characteristic of the capitalist economy. This relentless exploitation process increases alienation, along with the increase in poverty, discrimination, and inequality at the bottom of society. Moreover, at the upper level, richness-wealth-resource-property increases, the share of the people at the bottom of society in the national wealth and national income reduces; and the share of the people at the upper-level increase rapidly, and at the same time, all forms of crisis in capitalism originates in this process (the forms which have different manifestations, including the business cycle). It is important to note that in the Unitarian global capitalism, on the one hand, as in the epicentre of imperialism (in the USA in the present world), the accumulation and concentration of global capital will take place, just at the same time, the common crisis of capitalism will increase monotonically.

What I have said so far reflects that the owner of the capital at first comes to the market with money capital—as a buyer. However, if it so happens that the capitalist is not coming to the market not as the buyer, but as the ‘occupier’; forcibly, he wants to occupy and have control over the sky and space, including land, water, natural resources. It is precisely what the global rent-seekers are doing. In this process of traditional circulation-rotation-metamorphoses of capital, the accumulation and condensation of global capital are now such that different types of rent-seekers who do not create any wealth themselves and plunder the wealth created by others has accelerated and will continue to accelerate the whole process. In the case of ‘occupancy’ capital, what happened in the rotation of capital is not the main issue. The main issue is plundering—more and more plundering, as a result of which it is possible to ensure absolute ownership and control over the world’s four fundamental-strategic resources- land, water, fuel- energy-mineral, and space. In this regard, the method can be of many types: war, religion, trippy tricks of international trade and commerce, trickery in the exchange rate of currency, topsy-turvy of governments in different countries, everything.

Hence, what I have said so far with the purpose of political-economic formulation of religious fundamentalism and fundamentalist militancy, its basic premise is: in the capitalist monetary system, the formula of the general circulation of capital will be as depicted in Figure 1.

Figure 1: A simple form of the general circulation of capital



In reality, if this is the essence of the capitalist system of exploitation, then in that case in the final judgment, how the system of exploitation can be the root cause of the emergence, development, and expansion of the culture of injustice, sectarianism, religious fundamentalism, and fundamentalist militancy? In that case, what would be the type of transformed formula of the political economy mentioned above? I have alluded earlier to the underlying implication of this formula.

Notwithstanding, because of the issue's great importance, I need to point out some more arguments before forwarding my proposed formulation of the Political Economic Theory of Religious Fundamentalism. Can the situation be like this when the socio-economic system is exploitative, but justice and equity prevail? Some might say it can be (this is possible). They will cite an example, from the Scandinavian social-democrat ruled/governed country to the modern United Kingdom and the United States of America. This idea is a central delusion. Otherwise, why did Joseph Stiglitz write the book- *The Price of Inequality*, Paul Krugman - *End this Depression Now*, Thomas Piketty- *Capital in the Twenty-First Century*, and Noam Chomsky- *The Failed States* to tell us about the transformation of capitalism (though none of them advocates socialism)? In those advanced capitalist countries, greater civil society, even at the individual level are deprived of many types of equitable facilities and the means of enhancing capabilities; and at a greater level, the state-governments of those countries, from occupying Iraq by the world-lord US imperialist, are either directly involved in different countries, including the Middle East, with various forms of misdeeds antagonistic to nature and/or in the UN, World Bank, IMF, World Trade Organization, International Intellectual Property (!) Rights Protection Organization takes a strong position against the weak in protecting their interests. So, in an exploitative society, be it a single country-based or a collective coalition—from different types of injustice to various forms of religious riots relating to the community-race, clan, tribe-religion is likely to be a common denominator, an issue of the general formula. We must remember that an 'individual' is a social animal, socialized—not a single inhabitant of an island like Robinson Crusoe.

Before elaborating the proposed formula, I would like to make it more explicit than in the equation “exploitation→right”— ‘exploitation’ is the cause and ‘right’ is the effect. The effect that evolves from exploitation will embody the ‘right of the strong’ and the ‘dispossession of rights of the weak’ (the ‘Thucydides Principle’). Again, when the equation is “right→exploitation”, then right is visible as the cause, and ‘exploitation’ is visible as the effect. All these are the externality of cause-effect—the visible form. In fact, ‘exploitation’ is the cause of visible ‘dispossession of rights’ in the final judgment. Thus, without understanding the actual formula and not “admitting the context of exploitation as the regulating factor”, if anyone says that injustice-sectarianism-religious fundamentalism-fundamentalist militancy-corruption-misrule—are eliminated, then all problems will be solved—in that case, I will say, actually he or she did not understand or want to understand the political economy of the relevant issue, or it will be inconvenient if he or she understands or more than that (in that situation, I have nothing to do except to feel sorry about the humbleness of his perception and/or actual courage; I have no obligation to make them realize). Avoiding the context of exploitation, the eulogizeragent groups of “civil society class” and “intellectual class” says these; in my judgment, ideologically, they are subservient to imperialist superpowers. That is why avoiding the issue of root cause they deal with national and international airy issues (talking about these by avoiding the root cause is undoubtedly airy), such as injustice, sectarianism, religious fundamentalism, fundamentalist militancy, corruption, lack of good governance, climate change, and by indulging all these they use all kinds of publicity-broadcasting media including mass media and social media to distract people’s conscientization process. However, this is again the main form of the political economy of mass media and the publicity-broadcasting media.⁴

Here, it is more important to mention that when exploitation— by traversing the national boundary – takes an international form, the absence of rights and

4. The essence of the political economy of the mass media is like this: All kinds of mass media ultimately protect the interests of the owners who are mainly rent-seekers (who do not create any wealth themselves, forcibly seize the wealth of others); they are again the controller of the state, government, politics; The same characteristics are applicable to international mass media, but their position is at a higher level, where the local mass media is mainly subservient to them in terms of level of orderliness. Censorship in the mass media basically means self-censorship; Feature articles in the mass media or ‘maintaining silence’ are “tacit collective actions”, the main task of the media is to mobilize bias in terms of incentives to ownership, constraints, organization, market and political equity which finally protect the interests of the regulatory class or group (See these in details, Edward S. Herrmann and Noam Chomsky, 1994, *Manufacturing Consent: The Political Economy of the Mass Media*, pp. x11, 1-2, 13-15, 35, 303, 306).

injustice which prevails in the relatively weak country are also transmitted internationally beyond the borders of a particular country; signifying that, it is transformed into a subordinate entity of international-global exploitation system. For example, under the exclusive domination of the US imperialism worldwide, this is an adverse situation opposing to protect the existence in a judgment-free and independent entity of “right judgment-logical justice-impartial judgment-sovereignty”. These derive from the grand strategies developed by Dick Cheney-Ronald Rumsfeld-Colin Powell and implemented by the US imperialist administration. Besides, the US Presidents pursue this strategy with all aggressiveness, which will not change soon. Albeit this strategy of US-imperialism, the absolute authority of international-global exploitation is currently visible in the Muslim-dominated oil-gas-mineral-rich Middle East. However, there is no rationale to contemplate that the situation will be geographically restricted only to these regions in the future. Here ‘religion’ is not a causal factor. The main thing is the global exploitation of the world lords, of which we are only an integral part. The main issue is the capacity of the world-lord for expansion of the empire and absolute supremacy and also unopposed implementation of that rapacity. In this case, in the name of “war against terrorism”, 9/11 has been used, continually being used. It will be used as an instrument and a pretext to create terrifying situations and oppression and suppression at any scale. However, in the final judgment, the only thing that will remain as the primary root is “exploitation, further exploitation”—no matter the form and method of exploitation.

To sustain the system of exploitation-in-perpetuity— the imperialist power needs to proceed in a planned way. One of the most effective components of this plan is ‘religion’. This is clearly understood from a few examples of the relation of Islam-based fundamentalism with the existence and growth of imperialism. Imperialism—the US and the British have used Islam differently at different times in their interest to create their obedience in the Muslim world and suppress the existence of progressive forces in the state power (so that the ‘exploitation and further exploitation’ equation retains). Following are some of its examples⁵:

5. Prabhat Patnaik, 2003a, “Of Finance and Fascism”, in K. N. Pannikkar and Sukumar Muralidharan (Eds.). *Communism, Civil Society and the State: Reflections on a Decade of Turbulence*. pp. 81-82; Prabhat Patnaik, 2003b, “Imperialism and Terrorism”, in *The Retreat to Unfreedom: Essays in Emerging World Order*. pp. 105-110; Ayaz Ahmad, (2008), “Islam, Islamism and the West” In Panitch, L. and C. Leys (Eds.) *Socialist Register 2008: Global Flashpoints*. Vol. 44; Amin Saikal, 2003, “Islam and the west: Conflict or Cooperation?” pp. 5, 62-68; Samir Amin, (2007), “Political Islam in the Service of Imperialism”, *Analytical Monthly Review*, Vol. 5, No. 9, pp.6-8.

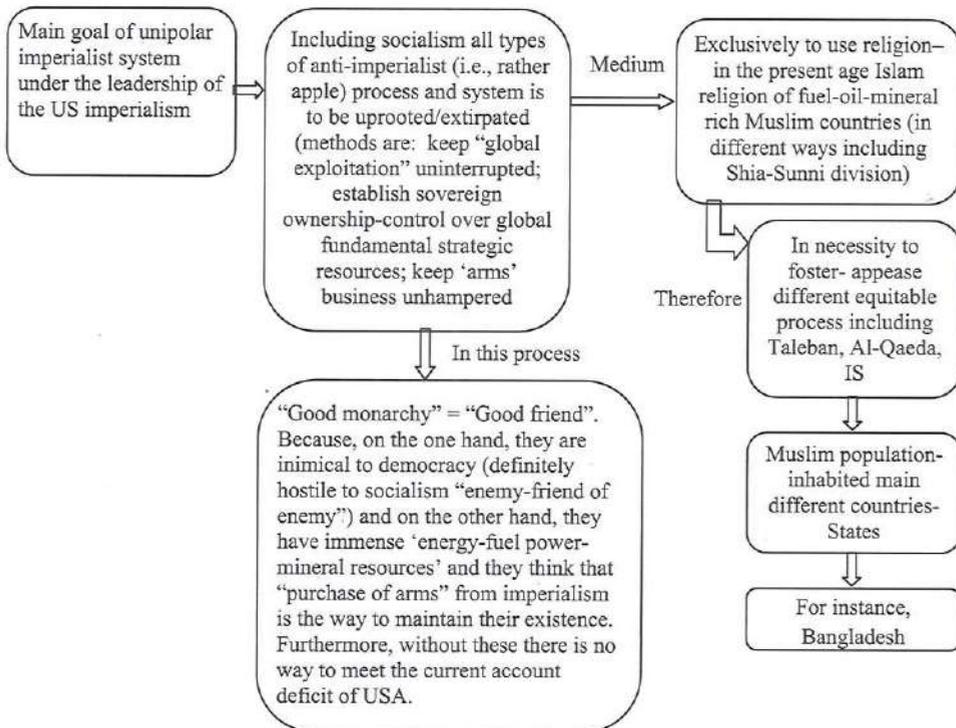
1. Around the year 1920, the British colonial power created the “Muslim Brotherhood Party” to protect autocracy in Egypt and prevent the rise of the secular and anti-imperialist Wafd party. Not only that, after the death of Egypt’s nationalist leader, President Jamal Abdel Nasser, members of the Muslim Brotherhood who fled to Saudi Arabia were brought back to Egypt under the direct supervision of the CIA led by US imperialism. In the long run, the result of this plan in the fall of a relatively long time government in Egypt imbued with the non-sectarian-democratic-nationalist spirit and ascending of Muslim Brotherhood into power.
2. With Iran’s President Mosaddek, when the Tudet Party (Communist Party) alliance nationalized oil resources, then uprooted that government directly by CIA-led military coup Reza Shah Pahlavi was sworn into power as king (Reza Shah Pahlavi is used to name as “king of all kings”).
3. The CIA was directly involved in the Communist killings in Indonesia and Sudan.
4. The “United Front of Asia and the African States” established in 1955 at the Bandung Conference was abolished later. The “Islamic Conference” was created to inspire Islam religion-based politics in the Muslim world, and the United States was the primary mediator of this initiative.
5. In the initial stage, Israel supported Hamas (in collusion with US imperialism) to enfeeble the secular democratic movement of the Palestine Liberation Organization (PLO) in Palestine.
6. The US intelligence agency created the Taliban and other Islamic militant organizations in Afghanistan under the direct supervision of the CIA.

Based on the above cause-effect analysis, there is no scope to doubt that ‘exploitation’ is the primary determinant and regulating factor of sectarianism, religion-based fundamentalism, fundamentalist militancy, corruption, misgovernance, and despotism. Moreover, to accelerate this exploitation, a method of rent-seeking have been included, which also may have been there earlier, but not so aggressive as before; and not ‘scientific’ as it is now (with the externality of which many ‘sensational’ information to make one feel giddy including WikiLeaks, Panama Papers, Paradise Papers has already been exposed/transpired).

However, based on the understanding of the dynamics of the global political economy of the last 40-50 years, there is no reason to think that capital owners and rent-seekers are different identities. The owners of the capital are either, in one breath, the owners of the capital or the rent-seekers, or the owners of the pure

capital are now subordinate entities to the rent-seekers. These rent-seekers are, in essence, a product of the financialisation of capital. They include a group of businessmen dealing with war weapons to military outfits and their high-powered less-visible agents and agent groups who are engaged in regime change changing governments in various countries ('the rotten apples'), individual-group occupying science, group occupying technology, individual-group occupying media, broker (looking after the interest) groups of large scale infrastructural construction to significant contracts in different countries, owners group of fundamental-strategic resource-property, group upholding ideals of the unified imperialist system. The more crucial is that the epicentre imperialism— US imperialism— leads in these matters. One more thing needs to be mentioned to present the complete form of what I have said, including the analysis in developing the political economy theory of religious fundamentalism; and that is the goal of the imperialist system is to link up any single country such as Bangladesh belonging Muslim religion with the monarchic Middle East, an Islam-based militancy. For ease of comprehension, it is depicted in Figure 2.

Figure 2: Goal of the Imperialist System, Monarchic Middle-East, Islam religion-based militancy, and Bangladesh: Linkages



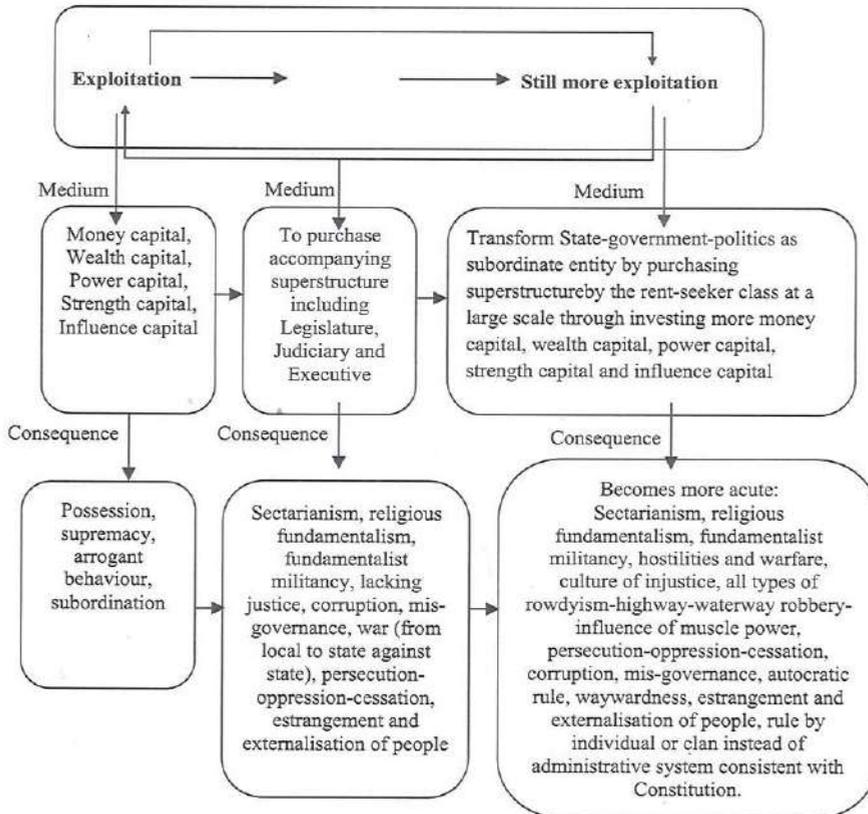
The epicentre-US imperialism's cardinal aim of a unipolar imperialist system is all types of anti-imperialist processes and systems (those who are 'rotten apple' as enshrined in the 'rotten apple theory'), including socialism is to be uprooted. Because the process of 'global exploitation' of a single imperialist system is to continue absolute unilateral ownership, sole authority, control, and dominance over global fundamental strategic resources, and the trading of their military-industrial complex (arms trade) is to be kept unimpaired. In this continuous process, the 'good monarchy' or 'good friend' or 'people like us' must be kept together because they have plentiful energy-fuel-mineral resources. Their "weaknesses, fragility, vulnerability, and capacity to purchase arms"—constitute necessary conditions for their existence. At the same time, without these, there is no other way to dispel the current account deficit of US imperialism (as well as other imperialism). The issue is purely economic.

Moreover, in this economic equation, among other things (in terms of time and context), 'religion' or (in the present age) Islam is used. Because one-fifth of the world's population following this religion (whose comparable number is increasing gradually) own one-fourth of the "energy-fuel-oil-energy-minerals" of the world. At the same time, they have a "geostrategic position." Therefore, a unipolar imperialism system needs to satisfy-nourish al-Qaeda, IS, and different processes which are homogenous in nature and alike in form; there is a necessity to intervene in the major countries practising Muslim religion, among which Bangladesh is prominent (at least, in the China-India equation including the geographically-centred Bay of Bengal).

Based on the analysis which I have presented so far, my last statement for the time being regarding the politico-economic formulation of religion-based fundamentalism and fundamentalist militancy is as follows:

In the early days of pure capitalism, the 'rent-seekers' were not the variable of crucial importance. However, when capitalism started taking the shape of unitarian global form under the US imperialism (unitarian capitalism is headed now by the US imperialism) since then the all-pervading equation of pure capitalism "money→commodity→still more money" has adopted a transformed form where rent-seekers has appeared as controlling factor of the political pyramid of wealth-pyramid and creation of wealth. Besides, these rent-seekers control the global wealth in various ways, prominent being religion, sectarianism, religion-based fundamentalism, and fundamentalist militancy. Then, in the final analysis, the circulation formula for the rotation of the political economy of cause-effect related to "sectarianism, religion-based fundamentalism, and fundamentalist militancy" took the shapes as shown in Figures 3 and 4.

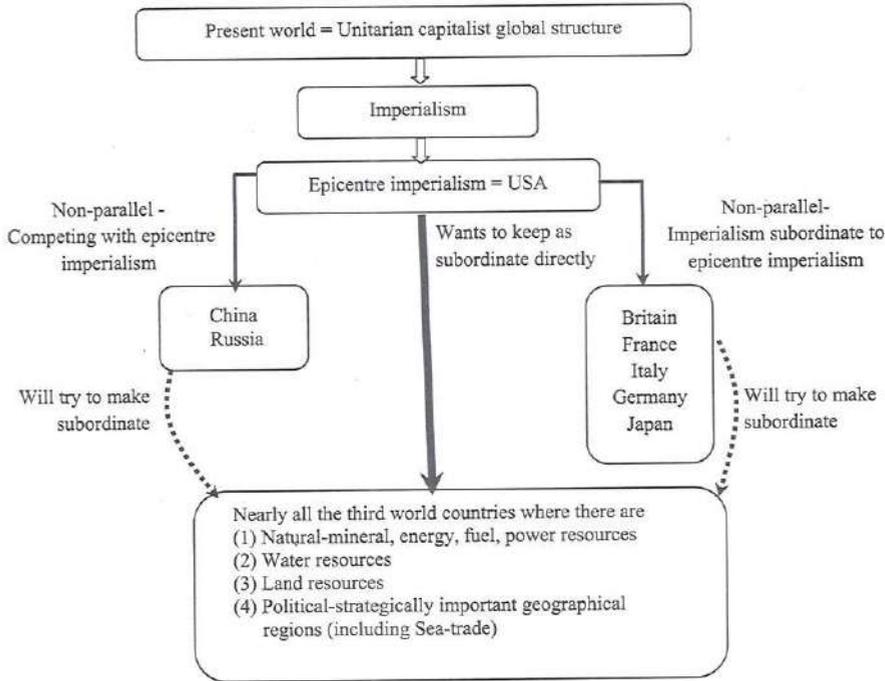
Figure 3: Circulation formula of the political economy of cause-effect related to sectarianism, religion-based fundamentalism, and fundamentalist militancy



4. Religious Fundamentalism: External and Internal Causal Relations

The *political economy of religious fundamentalism* can be viewed as a concentrated expression of religion-based communal politics to capture state power using religion as a pretext. It contradicts the secular approach to people, smothering and decimating the free, unfettered outlook. It launched a vicious onslaught on the spirit of secularism embedded in the Constitution of the People's Republic of Bangladesh in 1972 following the 1971 Liberation War. The act of satisfying the people's hopes and aspirations turned out to be a fiasco. At the same time, the erosion of a secular democratic mindset also occurred. Besides encouraging the growth of fundamentalism and its economic agents and interests, these factors have given birth to the institutions that turned favourable to their expanded reproduction – economic, political, social, and cultural. Consequently, the political economy of religious fundamentalism and extremism came into being.

Figure 4: Why the epicentre imperialism will make others subordinate in the Unitarian capitalist global structure? Pyramid indicating the order of subordinates.



The rise of socialism in the first half of the last century and its disintegration during the end of the century; economic crisis in the developed capitalist world; the aggressive attitude of imperialism and polarisation of the world, War and invasion of Afghanistan-Iraq-Libya-Syria, Western caricature by the name of “War on Terror” and the rise of unjust globalisation—all contributed to the growth of Islamic religion-based fundamentalism and associated extremism and militancy in the world. Imperialism has played a significant role in the speedy rise of religious fundamentalism and extremism in some parts of the world. It might be evident, among others, from the pertinent question: Who created Talibanism, Molla Omar, Osama Bin Laden, and the Islamic States Movement?⁶

The global communities find a subtle touch of irony as they bestow their concentration upon the fact that those rich and powerful countries, which want control over others, have not delayed describing such destructive elements as their enemy when their imperialistic interests are served. Here, the economic and

⁶ This might be an issue of long debate. However, truth lies in the fact that all these are reality and not generated automatically. And, “All reality is a historical process” (George Hegel).

political profit equation is the critical determinant. Where and how imperialism will play its role will depend on their political-economic equation with their self-interest—where, in the ultimate analysis, economic considerations play a pivotal role. Capital will not hesitate to risk its life if there is a chance of getting 300 per cent profit. Therefore, the rise of the *political economy of fundamentalism and associated extremism* is evident. Such religious extremism is compatible with the evolution of the free-market-mediated increasing alienation and crisis in identity. Likewise, suppose a particular form of fundamentalism turns out to be an obstacle to the growth of imperialism. In that case, the same will be replaced by another form of fundamentalism or communalism—this is also noticeable. In the present era, the political economy of oil and gas, geo-economics of water, the economics of war, the economics of ownership and command over space, the political economy of establishing command over the global market—these are some of the broad causal areas of bondages between religious fundamentalism-based extremism and imperialism.

Both external and internal elements of fundamentalism give rise to parochialism against religious liberalism. On the one hand, *the crisis of dollar economics*, the sharp growth of the petro-dollar in the world economy and its volatility, the attack of the Soviet Union on Afghanistan, the barbarian 9/11, and subsequent over-reaction in the name of “War on Terror”, doubt and mistrust in the people carrying the Muslim identity in the developed world, the *war against Iraq*—the second largest reservoir of oil in the world and occupation of the country, the invasion in Libya and Syria, the spread of alien culture through the electronic media in the name of globalisation, and on the other hand, large scale distress-destitution-deprivation of our people amidst politico-economic criminalisation and increasing helplessness of the ordinary person in daily life—all these created a space for and played an immense role in the spread of intolerance and hatred using religion. These were the key opportunities that have created the increasing demand for the exponential growth of religion-based communal politics and associated extremism. The consequent emergence of the *political economy of religious fundamentalism* can be seen as a supply-side response to that demand. Furthermore, supply creates its own demand.

Here, before proceeding further to understand the political-economic essence of the linkages between religious fundamentalism and imperialism (or, more correctly, the epicentre imperialism, that is the United States of America), it would be pertinent to present a brief analysis of two things mentioned above: “*Crisis of dollar economics*”, and playing ‘*War*’ (“War against Iraq”). The *crisis of dollar economics* has many dimensions. Dollarization of the economy has led Latin America, South-East Asia, and many developing countries of South Asia to crises (Stiglitz 2002). In

this regard, a special mention may be made that the United States is the most potent but highly indebted country globally (US budget deficit is equivalent to 6% of her GDP). Imports of the United States are a few times larger than its exports. To make up the gap, the US economy has to depend to a large extent on foreign lenders. The current account deficit of the United States is on average USD 500 billion a year. In this process, the cumulative indebtedness of the USA stands at USD 2 trillion at present, which is equivalent to 20 per cent of their GDP. At present, the US economy has to repay on average USD 200 billion with a 3 per cent per annum rate. If indebtedness continues at the present rate, the amount of debt of the USA in 2020 will be equivalent to 70 per cent of its GDP.

Without new taxes imposed on US citizens and/or without capturing others' wealth, the budget deficit of the USA will go on increasing. The situation in the USA aggravates further due to rising inequality "with the wealthiest 1 per cent owning more than a third of the nation's wealth" (Stiglitz 2013). Therefore, the US economy has no alternative but to grab the wealth of others – the other nations, the nations who are weak. Moreover, the US economy falls into the rank of "global rent seeker". This global rent-seeking by US imperialism is being accomplished using their "Grand Strategy" emanated from the "Monroe Doctrine" (of 1823), the Thucydides principle of "Might is Right" and the "Rotten Apple Theory" (for details, see Chomsky 1967, 2004, 2005, 2008; Herring 2008; Kaplan 2011). The US imperialism's global hegemony in a unipolar world is evident in their uncompromising quest for establishing absolute ownership and absolute control over four global resources, namely (1) land, (2) water resources, (3) energy, fuel, and mineral resources, and (3) space resources aiming at the militarisation of space. This "grand strategy" of US imperialism aiming at establishing absolute global hegemony considers anything and anybody against the strategy as "rotten apple" which might infect "good apples" (who are subservient of US imperialism), and, therefore, be destroyed without delay.

The next issue to understand causal links between imperialism and the rise of fundamentalism (religious and other forms) is the issue of '*imperialistic war*' aimed at the unhindered materialisation of US Imperialism's Grand Strategy of global hegemony. Moreover, such war is beyond even 'preventive war' – it is 'pre-emptive war' (embodied in Bush's doctrine of "pre-emptive strike against suspected threats"). In most cases, imperialism's 'War' is a profitable business. In addition, the target of any preventive war launched by US imperialism must have several characteristics: (1) It (the country) must be virtually defenceless, (2) It must be significant enough to be worth the trouble, (3) There must be a way to portray it as the ultimate evil and an imminent threat to their (USA) survival. Moreover, Saddam Husain's Iraq qualified on all counts (see Chomsky 2008, in

Arnove, Ed.). It is to note that the USA spends more on military expenditure (USD 410 billion per year) than the rest of the world combined. Economist Nordhaus may do a rigorous exercise and say that the USA may lose the USD 200 billion to USD 3,000 billion in the Iraq war. This loss is not an actual loss.

Noble Laureate Milton Friedman has put up a long list and stated that the war would benefit the world and boom the world economy. Lots of armaments are being sold. The business for the reconstruction of post-war Iraq has received momentum. Generally, after a major war, business on arms and ammunition goes on robustly in the Third World. It is also taking place, and if nowhere else, this occurs in countries with monarchs and kings in “good autocratic country.” It is worth keeping in mind that most imperialist countries are energy-dependent, and the energy security of those countries constitutes a key determinant of long-run development. The best routes of oil geography are the oil of Central Asia, Afghanistan’s oil route, and Iraq’s oil. “War for Oil” is central to the US strategy in Iraq. Iraq has the second-largest oil reserves globally, and Iraqi oil is very quickly accessible and cheap. As maintained by Noam Chomsky, “If you control Iraq, you are in a powerful position to determine the price and production levels (not too high, not too low) to undermine OPEC and to throw your weight around throughout the world. It has nothing, in particular, to do with *access* to the oil for import into the United States. It is about controlling the oil, which the United States wants to control” (Chomsky 2005). In addition to the grabbing of Iraq’s oil, there are two others no less important reasons for US imperialism to invade Iraq: (1) the sole drinking water sources of the Middle East are the two rivers Tigris and Euphrates – both originated in Iraq, and (2) the monarchs surrounding Iraq were to taught lessons for the future. Moreover, the lesson is, in short, the US Symington Solution: “*We offer them peace on our terms, and if they refuse – the victory of the graveyard.*”

About five years ago, I wrote to Noam Chomsky (my email to him on 24 July 2016) titled “Political Economy of IS and beyond: Nine days in June-July 2016”. It was about the emerging “China Factor” and the possible changes in the policies and strategies of U.S. imperialism and the relevant probable changes, including the fate of religious extremism. Due to its relevance, let me reproduce that:

“This write-up is neither an article nor an excerpt from any source; this is just my thoughts about the subject; an analysis of causal links “behind 9-days in June-July 2016”. People in academia are over-busy writing tons of pages; those in media spend millions of hours wasting time. The 9-days are from 27th June to 5th July 2016, i.e., the last few days before and after the Muslim’s most important religious holiday and festival—Eid-ul-Fitr. These 9-days were days of extreme turmoil and shocks for most Muslim-populated countries in Asia. What

happened? Who implemented? Who planned? What are the causes behind it? Are these isolated events or linked with something more significant? Things that happened in those 9 days — done by Islamist militants as claimed by them— with visible outcomes are as follows: Suicide bombing in Mukalla City/ Yemen that killed 38 innocent people including women and children (June 27); Bombing in Ataturk airport/ Turkey that killed 45 people (June 28); Grenade attack in a night club of Puchong city/ Kualalampur that wounded 8 persons (June 28); Stabbed-to-death in a Dhaka/ restaurant that killed 22 persons including 18 foreigners from Italy, Japan, USA, and India (July 01); Grenade attack on a powerful tribal chief in Jalalabad/ Afghanistan (July 02); Midnight car bomb blast in a busy market in Baghdad/ Iraq that killed 308 people and hundreds wounded (July 03); Bomb blast outside a mosque in Patani city / Southern Thailand that killed 1 person with 30 wounded (July 03); Suicide bomb attacks in 3 different places in the Kingdom of Saudi Arabia (July 4); Suicide bomb attack in a police station in Solo city/ Indonesia, in which the attacker died (July 05).

The questions are—Why here in Asia and who are behind and why? The critical elements of my central argument are: these are not isolated events; these are interrelated and planned; the event executors and the planners are not the same entities (planners have remote controls); they may even represent or hold different interests (planners are good in convincing the executors that they are with them and then at a suitable time kill the executors). The planners' key aim is to ensure and sustain their interest in absolute dominance (hegemony) over the global resources (including trade, water, oil, minerals, space, and whatever natural endowment is available) in a rent-seeking manner (i.e., plundering wealth available or created by others without creating wealth by themselves) or, in other words, destroying the Real Global Wealth. They give a dam to Rousseau: "You are undone if you once forget that the fruits of the Earth belong to us all and the earth itself to nobody." It is; therefore, one should search the source of planning in the very nature and aim of the hegemony of imperialist ambitions of the super-duper power—the U.S. imperialism operating through her competent and relevant agents—the CIA and their subordinates, the pentagons-sexagons (World Bank, IMF, WTO, NATO, UN, and various proxies such as EU and the even UK with Brexit). If and whenever needed, they will create and procreate all necessary new entities by the name of 'Peace', and even try to convince the rest of the world that— "We are bombing you to ensure eternal peace for you" (these are US imperialisms words for Vietnam). The plain truth is that U.S. imperialism has created Taleban, al-Qaeda, bin-Laden, Molla Omar, IS. Saudi Arabia, UAE, Qatar have no other alternative than to fund through petrodollar and cheap oil (any disobedience costs exceptionally high). So, in essence, all these have nothing to

do with Religion: religion is just a mask or a matter of practical (and historical) convenience or coincidence.

In order to understand the actual causal links, one has to understand the essence of International Political Economy (which in the first appearance may seem disjointed). One has to understand George Hegel, “All reality is a historical process”. The centre of gravity of the global power system is shifting, which is not the first time in human history. It is shifting geographically from the U.S. and Europe to Asia, where China is the rising-most power (therefore, Muslims of Uighur area of Schingian province are recruited by IS) and the border Russia is re-emerging (therefore CIA-IS has recruited the “star boy” militant Muslim Tarkhan Batiarashivilli and Axmed Chatianov and they became top war masters).

The ‘China Factor’ must be a true interest-of-fear and a real cause for U.S. imperialism headaches. The practical, specific reasons for such, among others, are caused by the following development in the last 15 years. In a brief period of the last 15 years- between 2000 and 2015- China has already emerged as a power challenging US imperialism. It is attributed to the following:

1. From the world’s 6th largest to second-largest economic power (but inequality is rising!).
2. In EastAsia, the US trade share has declined from 19.5% to 9.5%, and China increased from 10.2% to 20%.
3. the South China Sea is the route for one-third of the global sea trade, which China controls.
4. Malakka channel—located between Indonesia and Malaysia— is the route for 80% oil import by China.
5. China is heading towards the construction of a rail route: Singapore-Malaysia-Thailand-Laos-Myanmar-China, which aims to open a direct seaport of China with Singapore, Thailand, and Malaysia. China constructed a seaport in Arab-sea in Gwadar/Baluchistan to open oil and pipeline routes. China is constructing road and rail links from South China to Bangladesh and Myanmar, similar to the Persian and Arab Sea via Afghanistan-Iran. These are a big headache for U.S. imperialism and their allies in the west and European allies (actually, they are pseudo or quasi-allies)! Moreover, therefore, in all likelihood, no doubt, the future is going to be very bleak for the U.S. and turmoil-bound for all of us with emergence and re-emergence of many ‘fighters’, ‘proxy fighters’—IS (as non-state actors), SsIS (state-sponsored IS), HS (Hindu States), BS (the Buddhist States in China and East-Asia), CS (Christian States). So I think this whole China factor, accompanied by a geographic shift of power base around Indian and Pacific Oceans, prompted the U.S.

imperialism to create the response mechanism for ‘proxy war’ and ‘asymmetric war’ with the ‘Pivot-to-Asia’ policy and the CS21R strategy. Deploying the ‘Pivot-to-Asia’ policy and the ‘CS21R’ strategy, the U.S. will prepare for Air-Sea Battle with China by deploying 60% of its naval strength in this region by using all means, including religion. Soon, these will be responsible for wiping out of many Muslim Kingdom (e.g., KSA) and at the same time formation of New-Muslim Kingdoms (e.g., Uighur in China, or South of Thailand); many of the relatively secular-spirited Muslim-populated states may turn in to ‘Islamic States’. In other words, maybe ‘Sociocide’ will replace ‘Genocide’ under new forms of proxy war and new equations of Game Rule using modern Thucydides Principle.

However, not everything is linear and Newtonian—“History does not crawl, it jumps.” Then what will happen, if

1. Some of the secular societies in Asia become more secular under “good” leadership?
2. A sort of consolidation and solidarity emerges among people—globally (“global united force against injustice”)?
3. In some countries (in Africa and/or Latin America), progressive forces hold power in government, and they unite against imperialism?
4. Finally, at one point, did China and Russia join hands against dominant imperial power?

Then, US imperialism will be forced to withdraw or change the “Pivot-to-Asia” policy, which, of course, they will do. They have done that before, many a time, but the basic principle always remained the same—a happy marriage of the extension of Monroe doctrine with Thucydides principle (of might is right). Then What!” (Barkat 2016c).

Therefore, my critical conclusions towards the framing of Political Economy of Religious Fundamentalism (one may argue this as “postulate” or “hypothesis,” which will not change the essence of the conclusion) would be as follows: the contemporary world (especially after the fall of socialism in the Soviet Union) is essentially a unipolar one guided by the U.S. dominated Unitarian system of imperialist order, which subordinates all internal factors (and causes). It leads to a sort of global structure where external and internal forces (and/or causes and/or factors) form a single cause-form with two apparent differences; internal forces are subjugated to the prime external force – the U.S. Imperial Ambition aiming at establishing absolute ownership and control over four key-strategic resources of the globe, namely (1) land, (2) water, (3) energy-fuel-minerals, and (4) space.

5. Islam in Bangladesh: Transformation from Liberal to Political Islam

Now that the stage is set to understand the linkages between the essence of contemporary global politics and religious fundamentalist-extremism, it would be logical to proceed towards understanding the evolution of religion – from “religion” *per se* to “political religion” in East Bengal (now Bangladesh). The fact is that most of the written histories about the evolution of Islam in East Bengal are incomplete and euphemistic. They are not based on empirical evidence and lack knowledge-based inferences. Objective analyses of the materials of historiography, such as geography, changes of river morphology, the emergence and evolution of agrarian civilisation, changing pattern of land revenue collection, historical chronology, politics of the Hindu Raja and that of the Muslim emperors—have not been made in understanding the essence of the evolution of Islam in East Bengal. The relevant historiography is relatively weak and lacks objectivity.

In the writings of historians, the origin and evolution of Islam in East Bengal are available in four lines of the historiography of Islamisation in East Bengal—*Immigration, Sword, Patronage, and Social Liberation*. None of these historiographic lines is complete in terms of empirical substantiation. The pertinent issues without satisfactory answers include: Who are the immigrants? When and how did the immigrants arrive? How was Islam transformed into a mass religion with the sword’s power in this country? History tells us that even the most conservative Mogul emperor, Aurangzeb (1658-1707), did not encourage or exert pressure for religious purposes. Akbar (1556-1605) abolished the discriminatory land revenue system, banned activities offensive to the Hindus, for example, cow slaughter, admitted Hindu sages into his private audience and Rajput chieftains into his ruling class. He ordered that the holy book of the Hindus should be translated into Persian and celebrated Hindu festivals.

There is an inverse relationship between the degree of Muslim political penetration and Islamisation in the subcontinent. Dhaka was the residence of the Nawab for about a hundred years, but it contained a smaller proportion of Muslims than any of the surrounding districts, except Faridpur. Malda and Murshidabad contained the old capitals, the centre of Muslim rule for about 450 years. Nevertheless, the Muslims formed a smaller population in Dinajpur, Rajshahi, and Nadia (The Census of India 1901; Beverly 1872).

The main initiators of Islam in East Bengal—the Sufis-Devotees-Ulamaas—did not preach extreme religious rites during their time in the last many centuries. They even did not support any religious persecution. On the other hand, they kept the place of religious activity—Tomb, Mosque, Madrasa, Shrines—small in size. They cleared the forest and expanded the areas for agricultural activity in the

once-forest hinterland. They got this hinterland forest as a grant. It implies that they involved people in economic activities, primarily in agriculture. Side by side, Sufis emphasized activities related to rendering humane services. They never persuaded the people much to accept Islam. Their main motto was “service to the best of the creations,” that is, ‘service to the human person (*Ashraful Maklukath*) is religion.’ There is no evidence indicating that the Sufis in Bengal indulged in destroying temples or places of worship of other religions (Rizvi 1978).

The Sufis and their contemporary religious persons combined religious ideas with economic development and agricultural production. From the writings of the Sufis and Devotees, such evidence is there that “*Allah sent Adam to Sandip Island. At the instruction of Allah, Gabriel asked Adam to go to Mecca to build the original Kaba. After the Kaba was built, Gabriel gave him a plough and a yoke, a pair of draft bullocks, and some grains and communicated the instruction of Allah: ‘agriculture will be your destiny.’ Adam sowed the grains, raised crops, harvested and prepared bread with the corns*”⁷.

Therefore, in contradistinction with the central theses of most historiographers, we see no significant role of the Sword, Immigration, or Patronage in the propagation of Islam in East Bengal. Islam evolved in East Bengal as an adjunct of agriculture-based civilisation. Sufis and Devotees of Islam, along with preachers of other religions, participated in the struggle against feudalism and colonialism. They even gave leadership to such a movement. The Sufis and Ulamaas took such steps using the usual logic of liberal humanism of religion.

For the first time in the history of Islam in East Bengal, a major regressive trend was evident in the last century, which can be treated as a disaster in the socio-political life in Bengal. In anti-colonial movements, a move was launched to establish a State – based on religion, thereby creating Pakistan for the Muslims and Hindustan for the Hindus. This widely-known “two-nation theory” can be denoted as the first formal basis for forming ‘Political Islam’ in Bengal.

The Sufis and Ulamaas of the liberal humanism of Islam could not oppose the division of United India based on religion. This regressive transformation against the main religious course did not occur suddenly. Specific aggressive courses of religion (such as Wahabi) were in place. As a result, a negative transformation of the humanistic welfarism of the Sufi’s and Ulamaa’s Islam occurred. What was liberal, humanistic and secular turned into parochial aggressiveness. The object was to capture state power using “political Islam” in narrow selfish interest. With

7. *The Rise of Islam and Bengal Frontier—1206 to 1760* by Richard Eaton quoted from Saiyid Sultan’s epic poem “*Nabi Bangsa*”.

the establishment of the Pakistan State based on religion, a new trend was set. The trend of capturing state power through aggressive religious fundamentalism arose from a peaceful economic evolution-based agrarian development. Religious communalism became so powerful in Pakistan that in the 1965 Indo-Pak war, the feudal-army rulers did not take even twenty-four hours to level all the Hindus of East Pakistan into Hindustani. They proclaimed the 'Enemy Property Act', implying that all the Hindus residing in Pakistan are enemies.⁸

Such religion-based communalism supported by the state was never in evidence in the history of East Bengal.

The religion-based division of the country took place without the people's informed consent (irrespective of Hindu, Muslim, Buddhist, or Christian). They were not involved in the country's division process (the so-called referendum was just a tokenism). The people's opinion was not respected. That is why at that time, there was a bluffing slogan: "*Biri* (or *Bidi* —a locally made cigarette) in hand, beetle nut in the mouth, we will establish Pakistan through the fight."⁹ On the other hand, people with vision declared: "This independence is a blunt lie because millions are hungry."¹⁰

The country was divided based on religion (no one felt the need to seek the opinion of the mass of people). Due to the preponderance of the people of one religion in conducting state affairs, feudalistic Pakistan took the aggressive religious form. In India, the situation was not that acute because, in a relatively large country like India, the confluence of various religions and the politico-economic evolution of equality and equity were given constitutional recognition from the very beginning. In addition, both democracy and the media have played a critical role.

During the whole period of Pakistan (1947 to 1971), religion-based communalism was utilised in conducting state affairs and socio-cultural activities. For overcoming any socio-political – crisis, religion has always been used as a pretext. They would say, 'Islam in danger' wherever there was any problem. "Islam in danger" was the only slogan for maintaining military rule and autocracy. Finally, this same slogan was used against our liberation war in 1971. The slogan "Islam in danger" (*Islam khatre mein hai*) was used when the Punjabi, Sindhi,

8. Because of enactment of this inhuman communal Act in 1965 and its *de facto* continuation till today (as "Vested Property Act") about six million people belonging to the Hindu community have lost 2.6 million acres of land property (for details, see Barkat, Abul. et al., 2008). The real life consequences of this Act are well documented in Barkat, Abul. et al., 2000.

9. "*Hath me biri, mu me pan—Larke lenge Pakistan*"—the causes behind the popularity of this slogan can be traced to the interplay of two factors, namely, about 200 years of colonialism and exploitation of the feudal lords in East Bengal, most of whom were Hindus.

10. "*Yeh Azadi Jhooti Hai, Lakho Insaan Bhukha Hai*".

Baluch Army were brought from West Pakistan to East Pakistan to fight the Freedom Fighters. Of course, many witnessed a different situation in East Pakistan among the Pakistani Army. The same slogan, "Islam in danger," was used in this country while forming the so-called "peace committee." The *Al-Badr*, *Al-Shams*, *Rajakar* were formed with a handful of Bengali Muslim collaborators who were against the liberation of this country. These war criminals were confident that the Bengalis, imbued with the ideas of the liberation war, would be defeated by the joint effort of the powerful Pakistan military and these local collaborators — *Rajakar*, *Al-Badr*, *Al-Shams*. However, the opposite happened. At the price of colossal blood, we earned our independence. However, we failed to punish the war criminals who opposed our liberation war. It played a decisive role in bolstering their audacity. Those *religious traders* and a handful of their followers represent extreme religious communalism and the *economics of fundamentalism* in Bangladesh. In this country, this was a significant distortion of religion and may be termed the second phase of the regressive transformation of Islam in East Bengal. In this country, the evolution of Islam in its historical perspective (Sufism) is distinctly different from the present-day fundamentalism and their political economy. Therefore, today's religious extremism can be treated as a continuation of the religion-based act of terrorism of 1971 on a larger scale with a deeper base. This regressive transformation got impetus and crystallised with the legitimisation of communalism in the Constitution when 'secularism' was replaced by "Islam will be the State Religion" (Constitution of the People's republic of Bangladesh, Article 2A, Eighth Amendment).

Communalism in Pakistan worked as a basis for forming the State, which gained strength in a big way afterwards. For freeing the people from discrimination of two economies, the independence of Bangladesh was declared in 1971. The people of this country dreamt of a welfare state, where freedom of choice would prevail, where economic opportunities would be open to all, where social facilities would be evolved, where political freedom would be available, where there would be transparency and protective security, where there would be a non-communal environment and where secularism would evolve as a state principle. The Constitution of the independent Bangladesh State makes such promises publicly. Such a state also meets the demand for the fundamental rights of equality of men and women, irrespective of religion and caste. In the real sense, however, the difference between the promise and reality was so stark that the possibility existed for the spread of the *economics of fundamentalism* and the related politics of religious extremism.

6. Economic Power Base of Islamic Fundamentalism in Bangladesh: Issues on Foundation

The foundation of the *economics of fundamentalism*, or, in other words, the economic power base of the Islamist fundamentalists and extremists, is not weak in Bangladesh. Although the feudal relationship of production has formally come to an end in the Bangladesh economy, the traditional feudal psychology coupled with deep-rooted patriarchy has not been abolished on the one hand, and the capitalist relations of production have not yet evolved on the other. The worse form of capital of various types has evolved, which was not conducive to productive investment. This worse form of *vulture capitalism* is more conducive to producing “*brief case capitalism*” (commission agency) than a strongly-based home-grown industrial capitalism. This capitalism is more interested in “real estate and mall-centric economy” than in “productive industrial-agriculture-centric economy”. Therefore, from the structural point of view, the system is not conducive to the accelerated generation of employment in a labour surplus economy, thereby not conducive to poverty and inequality reduction.¹¹

Also, such a free-market economy is neither free nor poor-friendly. The so-called free market within globalised monopoly capitalism has not been instrumental in developing national capitalism in Bangladesh. On the contrary, it hindered that and fuelled the rise of communal politics and Islamic extremism in Bangladesh.

From the point of view of structural transformation, during the last 40 years (1975-2015) of independence, there has not been any fundamental progressive ‘pro-poor’ change in the economy of Bangladesh. It cannot be said that the spirit of the human welfare of independence has been realised. The critical spirit of independence was to develop an exploitation-free equitable economy, institute a secular mindset among people and establish an enlightened society imbued with

11. The economic idea about *poverty* is mostly a narrowly defined one indicating income poverty or food poverty (measured in terms of direct calorie intake or cost of basic needs only). Poverty, which creates space for fundamentalism, should be viewed in a broader sense as a complex interrelated domain of the following: income poverty, food poverty, poverty due to low wage, poverty due to unemployment, poverty due to lack of shelter, poverty due to lack of access to public resources including rights to khas land, poverty due to in access to public education, poverty due to ill-health, poverty mediated through environmental hazards, political poverty (due to lack of political freedom), poverty due to lack of transparency guarantee, poverty due to lack of protective security, poverty mediated through various forms of marginalisation (for example, among religious minorities, schedule caste people, indigenous peoples, poor women, women in female-headed households, women who are widowed and/or separated, slum dwellers, floating people, char people, rickshaw-van pullers, workers of informal sectors, people in low-end low-wage occupation, households with child labour, disabled poor, etc.), and poverty of mind-set (for details, see Barkat. A. 2006b, 2016d).

the spirit of liberation, i.e., ensure whole space for ‘real development.’ The gap between people’s aspirations and reality has been vast and is ever increasing. This widening gap between aspiration and reality has also helped generate and nourish religious fundamentalism in Bangladesh.

Independent Bangladesh has emerged as an outcome of the struggle against discrimination in the two economies. However, the trend of evolution of the last 40 years shows a clear division of the country of 160 million into two parts: in the first part are the powerful people of small groups, and their number is no more than one million (including family members); in the second part are the large numbers of people who are powerless and whose number will be 159 million. Due to the machination of politics and economics, a situation has been created where 159 million powerless people exist against only one million powerful people. These 159 million people are helpless, deprived, destitute, and distressed. In the real sense, there was no conscious socio-political effort from the governance quarters to make these large numbers of powerless people into powerful ones or empower them by including the excluded. On the contrary, multi-faceted efforts increase the power of the powerful people in society.

Undoubtedly, most of the powerless people in Bangladesh—whatever is reflected in the “statistical economy”—led their lives in extreme suffering and misery. The relative share of the poor people in the total national household income is declining, and that of the rich is increasing, and this means – inequality is rising. In parallel, a self-destructing *culture of plundering* and a *culture of secrecy* (opposite of transparency) have struck deep and strong roots in the economy, politics, administration, education, and culture. Black money, violence, illegal arms, muscle power, illegal gratification, kickback, speed money, corruption, maladministration, oppression-repression are the determinants of the *culture of plundering*. All these contribute to the rise of the *economics of fundamentalism* and the consolidation of religion-based politics (*‘Political Islam’*) in Bangladesh.

The basic tendency in the socio-economic evolution during the last 40 years depicts that one million criminals have trapped 159 million helpless people in the framework of institutionalised criminalisation. These two trends are evident in Bangladesh: a powerful criminal minority and a powerless majority (the victims of criminalisation). The rise and growth of Islamist fundamentalism and associated militancy during the last 40 years depict a scenario that clarifies that whatever is against human welfare and human development is rising.

During the last 40 years, economic criminalisation has acted as a powerful catalyst to criminalise all spheres of politics and society. We have attained a situation of perpetuating the exclusion of the excluded; an environment aggravating the process

of alienation of the excluded; a scenario which has created conditions for more active denial to address the issues on the broadening of human choices for full-life (to ensure five types of freedom the people shall enjoy). The developmental balance sheet vividly shows that we are now caught in a trap of the culture of plundering wherein the overall environment favours everything against human development, which is entirely in congruence with the interest of criminalisation. The last forty years' socio-economic developmental balance sheet of Bangladesh depicts a clear tendency: the status of all indicators conducive to human development is getting worse, and indicators associated with the criminalisation trap are getting more robust, thereby limiting the scope for broadening human choices to exercise their own free will. During the past four decades of our development, we are again back to the discriminatory two-economy (with added strength): one economy is represented by only one million most powerful people (in the steering wheel, irrespective of who holds the formal power), and the unempowered majority represents the other economy, 159 million people—the excluded, deprived and distressed (Barkat 2003, 2004a, 2016d). This highly uneven and grossly inequitable development pattern has taken place when Article 7 of our Constitution stipulates, "*All powers in the Republic belong to the People*".

The analysis of the type of development that Bangladesh passed through in the last forty years makes it clear that some people became owners of unlimited wealth not by creating wealth but by way of taking wealth away from others (became rent-seekers) and a more extensive section of the people have become poorer and pauper. Grabbing resources and increasing unearned income at a high rate, pomp and show have gone up, and the sufferings of various kinds of the more extensive section of the people have expanded. Multistoried buildings have been erected, but side by side, the number of slums has gone up; the government's actual allocations for the welfare of the people have declined, and side by side unproductive expenditures have gone up; donor interferences have increased, and simultaneously local initiatives have decreased, and the government allocations have gone up in the unproductive sector. The distance between the public and public servants has increased. Election expenditure has gone up, but good governance and the efficacy of elected institutions have gone down; the power of black money has gone up, the politicians' respect for people has gone down, and discrimination between the rich and poor has increased. The government's actual allocation in basic education has gone down. Poverty-related diseases have increased, the actual expenditure on people's health has gone down, and the efficacy of the government's health sector has eroded. Trading on religion increased – the number of *Pirs*, *Fakirs*, astrologers, fortune-tellers, violence in the name of religion—has gone up, and love for the people of different religions has

declined. The culture of rationality and science, secular behaviour, and enlightened mindset has been severely damaged. In other words, cultural communalism has deepened.

More so, communalism in education has increased the strength of the economic power of fundamentalism. Every third student in Bangladesh is a Madrassa student numbering 8 million; 73 per cent of all Madrassas (55,000) are Quomi Madrassa (a large part is breeding ground of religious fundamentalism); annual expenditures of Madrassas would amount to USD 175 million; 75 per cent of the Madrassa graduates become unemployed; most Madrassa students are from poor or lower-middle-class families (Barkat et al. 2011). During the last 40 years, the number of mainstream primary schools has doubled, but the number of Dakhil Madrasas (religious schools) has increased eight times. Over the same time, enrolment in primary schools has doubled, but those in Dakhil Madrasas increased thirteen times; public expenditure per student of government middle class educational institutions is Tk. 3,000 as against Tk. 5,000 in the Madrassa sector. Therefore, the “intellectual” basis for the rise of religious extremism is in full swing.

In terms of changes in the composition of Islamist extremism’s intellectual basis, a severe cause of concern needs to be noted. A widely held perception was always there that most extremists are related to religious – Madrassa education, and it is not even the complete picture. A closer look at the actual situation on the ground reveals that the extremists, in most cases, those arrested belonged to JMB and HUJI-B, with the background of Madrassa education. However, those arrested representing Ansarullah Bangla Team (ABT) and Hijbut Tahrir, who killed the progressive bloggers, were from the mainstream education system (not Madrassa). Many of the latter were held from well-off families. While it is difficult to ascertain the relative composition of the educational system background of the Islamist extremist caught by the law enforcement agencies, it could be safely concluded that 50 per cent are from Madrassa background and 50 per cent from general education (non-Madrassa). However, although this indicates that a large part of the Islamist extremists belongs to the non-Madrassa background, it is not easy to draw any firm conclusion about the actual share by educational and economic background. It is simply because we do not know the actual total number of Islamist extremists by their education-system related and economic-status related background. However, one critical thing of our education system, irrespective of religious and non-religious (or the so-called secular), is that it produces “hopeless and frustrated graduates”. Because it does not value basic philosophy, history, and nature-related disciplines in its curricula, therefore, it is a serious issue to ponder upon in our future education planning.

The development pattern mediated through economic and political

criminalisation and the anti-poor, anti-middle class political economy has transformed the socio-economic class structure in rural and urban Bangladesh. This changing class structure is highly compatible with the rise of religious extremism and the *political economy of fundamentalism*. The nature of such transformation of the socio-economic class structure in Bangladesh indicates an overall deteriorating situation of the poor and middle class and the concentration of assets and power in a few belonging to the wealthy class. The dynamics of socio-economic classes in Bangladesh during the past 30 years (1984-2014) bears ample testimony about the formation of wealthy class a few in number and overall fall in the status of poor and marginalized – the predominant majority of people. The following features reflecting the trends in socio-economic class structure, which explain the real reason(s) for the rise of religious extremism and the *economics of fundamentalism*, are in order:

1. In 2014, out of 160 million people in Bangladesh, 66 per cent were poor, 31.3 per cent represented the middle class, and the rest 2.7 per cent were rich. In just about 30 years, between 1984 and 2014, the number of poor people has increased by 45.5 million, from 60 million in 1984 to 105.5 million in 2014. The actual inequality has increased manifold. This rising number of poor and increasing inequality—an outcome of failure in national development—constitutes a solid basis towards religiosity and the formation and rise of religious extremism in Bangladesh.
2. The poor are disproportionately highly concentrated in the rural areas compared to the urban: 82 per cent of the poor live in the rural and 18 per cent in the urban areas. Among the rural households, 60 per cent are landless, 60 per cent do not have access to electricity in the households (one should realise that electricity is not just light; it is also enlightenment),¹² and 65 per cent do not have access to the public health system; urbanisation in Bangladesh is basically “slumization” or “ruralisation of urban life” without concomitant industrialisation but with the growing informal economy.¹³ This nature of poverty in both rural and urban areas forms a fertile ground for the growth of religious extremism and associated activities.
3. During the last 30 years (1984-2014), the total population has increased by

¹². For details about impact of electricity on rural poverty, see Barkat, Abul (2005b). “Bangladesh Rural Electrification Programme: A Success Story of Poverty Reduction through Electricity”.

¹³. For details about “not urbanisation *per se* but slumization”, see Barkat, Abul and S. Akhter (2001). “Mushrooming Population: The Threat of Slumization Instead of Urbanisation in Bangladesh”; Barkat, Abul (2016d). “Causes, Consequences and Transformational Possibilities of Poverty-Disparity-Inequality in Bangladesh: In Search of a Unified Political Economy Theory”.

60 per cent, but it has increased by about 76 per cent among the population in the 'poor' category. Therefore, it is most likely that the growth in poverty-led fundamentalism has been high.

4. Among the current 50.1 million middle-class populations, 27.1 million (54% of the entire middle class) are in the lower middle class, 15.6 million (31% of the middle class) are in the mid-middle class, and the rest, 7.5 million (15% of the middle class) are in the upper-middle class. This middle class – especially the unstable lower and mid-middle classes (combined constituting 27% of the total population and 70% of the total middle-class population) – forms the intellectual drivers of fundamentalism and the key to the 'success' of militant religious activities (for details, see Barkat 2015a, 2015b, 2016c, 2016d, 2017d).

In brief, the following dimensions of class dynamics showing rising inequality are worth analysis:

- a. During the last 30 years (between 1984 and 2014), the absolute size of the population has increased by 60 million. Which class contributed how much to this incremental 60 million people? Estimates show that 76 per cent of the total incremental population can be attributed to the incremental population in the 'poor' category, 14 per cent due to the downward shift of the past-lower-middle class, and about 5 per cent due to downward shift of the mid-middle class.
- b. Middle-class people are relatively more concentrated in the urban areas (45% of the total urban population) than rural (27% of the total rural population). However, about 66 per cent of all middle-class population lives in the rural areas (of whom about 59% represent lower middle class having regular tendency to join the rank of poor).
- c. During the last 30 years (1984-2012), the population size in the middle class has increased by 13.6 million (from 36.5 million in 1984 to 50.1 million in 2012). Sixty percent of this increment in the middle class has been due to the increase in the size of the lower middle class, implying lower middle class (in most cases) could not go up as well as there has been a downward shift from mid-middle class to lower middle class.
- d. During the last 30 years, while the size of the population in the entire middle class has increased by 37 per cent, the lower middle class has increased by 43 per cent when a large number of the lower middle class has gone down to join the poor.
- e. The population size in the rich (upper class) category is 4.4 million (in 2014). During the last 30 years, there has been an addition of 1.1 million people in the rich category – an increase of 33 per cent between

1984 and 2014 (with a low base of 3.3 million in 1984). More importantly, the relative share of the rich category in the total population has decreased from 3.3 per cent in 1984 to 2.7 per cent in 2014. Furthermore, based on studies on economic criminalization and the black economy, it can be argued that within the “rich class”, a minority group has been created who are super-duper rich or, in other words, there may be 20 per cent among “rich” who commands over 80 per cent of the total wealth of “rich class.” All the abovestated imply that the Bangladesh economy and society with the rent-seeking dominated structure has taken the shape of “For the 1%, of the 1%, by the 1%”. Such a structure perpetuates rising poverty and inequality and creates and procreates the most congenial fertile ground for rising religious fundamentalism and associated militancy (for details, see Barkat 2016d, 2017b, 2018).

Therefore the balance of dynamics of the socio-economic class structure in Bangladesh depicts that, during the last thirty years, the overall inequality situation has worsened: the middle class has shown a downward tendency with extended reproduction of the poor from the lower middle class, and reproduction of the lower middle class from the mid-middle class; and wealth has been accumulated in the hands of a few rich (2.7% of the total population, but perhaps 80% of their wealth being in the hands of 20% of them constituting the super-duper rich). The worsening mass poverty and widening of inequality coupled with a declining non-stable middle class and ‘naked’ super-duper richness of a few provide the solid ground in Bangladesh for making the soil most fertile for both production and extended reproduction of religious communalism, fundamentalism, and religious extremism in all spheres of life.

Based on the above analysis, it may be concluded that although historical development over the last few centuries did not indicate communalisation of the economy, the recent past’s anti-human development and anti-human welfare efforts have strengthened the politico-economic basis of religious extremism and nourished all the conditions for strengthening the base for economic fundamentalism. Moreover, all the elements of the so-called national development within the orbit of economic and political criminalisation guided by the rent-seekers who have subjugated both the government and politics and that within the larger canvas of imperialistic global system (guided by the imperialist epicentre—the United States) have accelerated the process.

7. Islamist Fundamentalism in Bangladesh: Magnitude, Mechanisms, Strength, and Sources

In post-liberation Bangladesh, political power favouring people’s welfare has not

evolved. Autocracy or a parliament with the vested interest of black money has repeatedly returned to state power. The economy has been criminalised, which has enhanced the effective demand for the criminalisation of politics. The extent of criminalisation of our economy can be gauged from the following. During the last 40 years (between 1975 and 2014), a total of about USD 32 billion (1 USD = Bd. Tk 78.40) of foreign loans and grants have come to Bangladesh officially. National-international vested interest groups have misappropriated an estimated 75 per cent of these.¹⁴ These people now produce black money equivalent to approximately USD 9 billion (estimated for 2015). Estimates show that the cumulative total amount of black money produced in the country during the last 40 years would be equivalent to USD 100 billion.¹⁵ These same agents of the criminalised economy are involved in money laundering equivalent to about USD 5-7 billion annually. These are the members of organized syndicates responsible for artificial price hikes of essential commodities (food and non-food).¹⁶ They are bank loan defaulters of about USD 10-12 billion. These are the people, many of whom are involved in the illegal trading of drugs and arms of high value. For any government procurement or big tender, they have to be paid at least 20 per cent commission as rent for doing business in “their territory of influence”. These people have unlawfully occupied *khas* (government-owned) land and waterbodies—they are grabbers of around 15 million acres of *khas* land and waterbodies. Some of these people are the owners of commercial shrimp firms (*gher*) and have command over private armed brigades in the coastal belts. It is to be noted that, geographically, these coastal belts are a good breeding ground for religious extremists.

This economic criminalisation has increased the effective demand for political criminalisation. Political criminalisation has many faces: the economic criminals, for their self-interest, grab political processes and influence decision-making institutions to make it impossible to conduct state affairs as per the constitutional norms. They finance concerned organizations and persons of mainstream power politics. They patronise grafts and corruption. They play a critical role in determining state budget allocations and enjoy the same. They grab everything—land, water, and even the court’s verdict. They utilise the coverage

14. For methodological details, see Barkat, Abul (2001). “How Much Foreign Aid Does Bangladesh Really Need: Political Economy of Last Three Decades”.

15. For details, see Barkat, Abul (2005f). “On Price Hike of Essential Commodities and Human Development within the Context of Political Economy of Criminalisation”.

16. For details, See Abul Barkat (2006b). “A Non-Poor’s Thinking about Poverty: Political Economy of Poverty in Bangladesh”.

of the religion wherever needed, and of late, they do anything and everything in the name of religion. They ‘purchase’ seats in the parliament—they know that, depending on circumstances, by investing USD 167 thousand to USD 4.7 million, they can “purchase” a seat in the parliament. In addition, they go on practising the same—in the 1954 parliament, ‘business people’ constituted only 4 per cent, and now they constitute 84 per cent in the parliament. Even the Election Commission does not know what the ‘business’ is. People have no confidence in their hearts in such criminals of politics and economics. As there is no ‘role model’ in politics before the people, such tendencies have created frustrations and hopelessness among the masses. These factors have highly facilitated the creation of a ‘space’ for the spread of religious extremism and ultra-communal fundamentalism.¹⁷

Because of economic and political criminalisation, people have either already lost or are increasingly losing confidence in the so-called democratic politicians. At the same time, the progressive tendencies have either not evolved or are not evolving. When people become steadily endangered, they lose confidence in governing institutions. When lack of confidence becomes the rule, most people increasingly and gradually become dependent on fate. Moreover, this *dependence on fate* is increasing in an agrarian economy, where 60 per cent of the farmers are effectively landless. It should not be forgotten that Islam here in East Bengal has evolved based on agriculture. The politics of Islamic fundamentalism is exploiting this vacuum. People have seen with their own eyes how the communal forces, even in a country like India, where democracy has prevailed for long, initially captured two to three seats in the parliament and finally became successful in capturing state power in 10-15 years. In addition to other instances, these are examples of how the communal forces think their dream of climbing to power in Bangladesh will come into reality. They also know that to make their political power self-reliant, they need stable economic power of their own. Based on this necessity of the “economic power-based political process”, they practise different politico-economic organisational models in different places to capture state power by forming a cadre-based militant party. They call it the “*Jihadi Party*”.

Furthermore, based on the ‘Khomeini experience’ in Iran, they argue for the possibility and necessity of capturing state power. Therefore, in the whole process of transformation of the once humanistic Islam into political Islam, they have successfully assimilated the *mythos* of religion with the *logos* of reality, and under the overall umbrella of an Islamist Political Party (with its many branches including militant activists) pursue economic power-based political processes

17. See for details, Barkat, Abul (2005e). “Criminalisation of Politics in Bangladesh”; Barkat, Abul (2005g). “Right to Development and Human Development: The Case of Bangladesh”.

aimed at capturing state power. Ideologically, they argue that this process is a transformation from ‘Western modernity’ to ‘Islamic modernity’, and they are confident about the success of this process in a country like Bangladesh.

In Bangladesh, fundamentalism experiments the effectiveness of various politico-economic models with the help of cadre-based politics. This politico-economic organisational model of fundamentalism intends to create “an economy within the mainstream economy”, “a government within the government”, and “a state within the state” aimed ultimately at capturing state power. The following twelve constitute the key sectoral elements of the model: (1) financial institutions, (2) educational institutions, (3) pharmaceutical-diagnostic and health-related institutions, (4) religious organisations, (5) trading and commercial establishments, (6) transport and communication-related organisations, (7) real estate, (8) media and IT, (9) local government, (10) NGOs, trusts and foundations, (11) Islamist Militant organizations (such as Ansarullah Bangla Team, *Bangla Bhai* or *JMB*, *Jama’atul Mujahedeen* Bangladesh, *Harkat-ul-Jihad-al-Islam*-Bangladesh, *HUJI-B*, and such programme-based organisations)¹⁸, and (12) occupational/ professional activity-based organisations including of farmers and industrial workers. Among these institutions, not all are profit-earning (for example, local government and professional groups). In such cases, cross-subsidies are given, and they earn high profits even in so-called non-profit organisations; for example, the *Bangla Bhai* project, where land revenue and extortion have been instituted.

Even in some areas, high profit is earned in Madrasas, meaning the income is higher than the expenditure at the end of the year. Another good example is the registration of “*Chashi Kalyaan Samity*” (Farmers Welfare Association) —the

¹⁸. These programme-based Islamic fundamentalist organisations are primarily the militant fronts of the mainstream Islamist Party. There are 123 such Islamist militant-extremist groups in Bangladesh (See, Annex 1), the most prominent ones are as follows: *Al-Harat Al-Islamia*, *Allar Dal Brigade*, *Al-Markajul Al-Islami*, *Al-Jihad Bangladesh*, *Ahle-Hadis*, *Al-Kurat*, *Al-Islami Martyrs Brigade*, *Al-Khidmat*, *Amirate-Din-AL-Sayeed Mujaheed Bahini*, *Ansarullah Bangladesh Team*, *Al-Tanjeeb*, *Arakan Mujaheed Party* (and other groups carrying ‘Arakan’ names), *Harkat-ul Jihad*, *Harkat-ul-Islam Al-Jihad*, *Hijbut Tawheed*, *Hijbut Tahrir*, *Islami Bipplobi Parishad*, *Iktadul-Talah Al-Muslemin*, *Jama’atul Mujahideen Bangladesh (JMB)*, *Jagrata Muslim Janata Bangladesh (JMJB)*, *Joysh Mohammad*, *Joysh Mostafa*, *Jangi Hakikat*, *Jamaeet-ul Falayia*, *Jamaat-e-Yahiya Jummatul Al-Sadaat*, *Sahadat-e-Al-Hikma*, *Shahadat-e-Nobuyot*, *Hezbollah Islami Samaj*, *Hizbul Mahadi*, *Ibtadatul Al-Muslemia*, *Jamiayeete Islami Solidarity Front*, *Rohingya Independence Force* (and other groups carrying ‘Rohingya’ name), *Tahfize Harmayin*, *Khedmate Islam*, *Islahul Muslemin*, *Islami Liberation Tiger*, *Ta-Amir Ud-Din*, *Tauheedi Janata* (see Barkat 2013a, 2018). All of these militant groups receive funding and other support from both external sources and domestic economy of fundamentalism.

official peasant wing of the Jamaat-e-Islami—by the NGO Affairs Bureau; this is contradictory to the law of the land, which says that a “Political Party or their affiliates cannot be registered with the NGO Affairs Bureau which permits obtaining foreign fund for political activities.” Earning profit from non-profit organisations is a significant strength of religious politics, which is possible because such politics perfectly exploit people’s psychology of “dependence on fate or destiny.” It can be concluded from one fact (among others) that most *Jihadis* (armed) caught by the police in the last few years (in Bangladesh) have categorically said to the press: “To do armed *jihad*—is my right, and to participate in armed *jihad*—is my responsibility as a Muslim. No one has the right to stop one from doing *Jihad*.”

The above-mentioned organisational models of economic fundamentalism differ significantly from the usual business norms and strategies. Some of the crucial characteristics of conducting the economic model-strategies of fundamentalism are as follows: (1) Each model is run by ideologically motivated experts aiming to attain their supreme political goal: “capture state power.” (2) In each model, multi-faceted management procedures are applied, where the critical policy matters are being decided and controlled by the political leadership. (3) Although there is coordination among various models, mutual identification of the high-level coordinators is kept sufficiently secret (may be regarded as a sort of a strategy of guerrilla warfare). (4) Each model is well-coordinated and well-disciplined (pursuing the policy of military discipline), following the profit spirit of private sector organisations. (5) Whenever a model successfully realises its politico-economic objectives, it is quickly replicated at different strategic places.

Therefore, it can be argued that, in pursuing their economic models, the religious fundamentalists and extremists are politically fully conscious about their crucial aim of capturing state power, and they constantly try to use scientific means and methods for the realisation of the goal in their own way. It also implies that although the theologies and ideologies of fundamentalism are rooted in fear and get impetus due to increasing inequality, these movements are not just an archaic throwback into the past—they are innovative and modernising.¹⁹

Regarding the source of funding, some experts argue that the Islamist religious extremists procure the whole (or most of the) money from abroad for conducting their activities. It may be untrue to a great extent (See Box 1),

¹⁹ Fundamentalism is a child of globalisation, which it both responds to and utilises. Fundamentalist groups everywhere have made extensive use of new communications technologies. Before he came to power in Iran, Ayatollah Khomeini circulated videos and cassettes of his teachings. *Hindutva* militants have made extensive use of the Internet and electronic mail to create a ‘feeling of Hindu identity’ (Giddens 2003).

although they collaborate in trade and commerce with foreign co-ideology investors. Most likely, the significant portion of the donations come from foreign sources to and through the NGOs controlled by them. The hypothesis mentioned above may not be correct to a large extent because religious fundamentalists have already successfully built a solid economic base of their own. It has happened or is happening as follows: they were directly involved in looting the properties of the ordinary people in 1971; the ultra-communal forces, divided into many parties and activist groups, have got substantial financial support from abroad (to conduct their activities) since the mid-1970s; they invested such resources to build relevant socio-politico-economic models.

In most cases, their invested money earns a high profit. They utilise a part of the profit to promote organisational activities.²⁰ A part of the profit is used for the institution's extension, and a part is spent on creating new institutions.

As shown in Table 1, the estimated annual net profit of economic fundamentalism in Bangladesh (in 2015) would be about USD 367 million (Bd. Taka 28.74 billion; US \$ 1 = Bd. Taka 78.40). The highest share of such profit, 27.8 per cent (of the total net profit), comes from financial institutions (banks, insurance companies, leasing companies).²¹

The second highest, 19.4 per cent of the total net profit, comes from NGOs, trusts, and foundations,²² 10.6 per cent comes from trading concerns, 10.0 per cent profit

²⁰. This includes expenditure on account of salary to the political workers, expenditure in connection with conduct of day-to-day political activity, funding huge threat gathering such as by Hefazate-Islam in Dhaka city on 5 May 2013, funding religious functions including "Waaz Mehfiles", running arms training centres (the Foreign Ministry of India has accused that there are 148 arms training centres for the fundamentalists in Bangladesh), killing people who they fear, such as the bloggers etc. This accusation has not been denied formally. Similar accusations have been made by the United States and European Union. The government's position on the existence of such arms training centres in Bangladesh was unclear until August 17, 2005 (that is, until the day of countrywide serial bomb blasts). The government until that period used to say that "JMB and JMJB do not exist, these are creations of the media and political Opposition". However, after the August 17, 2005 incident the government was forced to change its position: from non-recognition to tacit recognition of the existence of militant activities. The print and electronic media have been openly disseminating information about such arms, explosives, relevant leaflets and booklets, training centres with photos of trainers etc.

²¹. The link between the Islamic Bank (the local bank with highest amount of market capitalisation among all local banks) and the religious militant groups has been clearly evident in the fact that because of this link this Bank got the highest punishment under the Money Laundering Act by the State Bank (Bangladesh Bank) in 2006.

²². In Bangladesh there are about 231 NGOs under the control of Islamist fundamentalists. The ten most prominent Islamist NGOs having links with extremist activities include *Revival of Islamic Heritage Society (RIHS)*, *Rabita Al-Alam Al-Islami*, *Society of Social Reforms*, *Qatar Charitable*

Box 1: Link between Mainstream Islamist Party and Religious
Extremists: Source of Funding

The countrywide horrible serial bomb blasts by Jama'atul-Mujahideen Bangladesh, JMB (on August 17, 2005, around 500 bombs were blasted within 30 minutes' time between 9:00-9:30 AM targeting the offices of the Deputy Commissioners and Collectorate and Court buildings) prompted some experts to delink the connection between the bombers-organisations (for example, officially banned JMB or JMJB) and the mainstream "Islamic" political party in Bangladesh. This disconnect is neither established, nor can it be established. On the contrary, connections and links are more probable. This is because of the following: not only the armed Jihadis but also the mainstream open "Islamic" party have declared their common vision to "Capture State Power"; the party chief openly declared that "Islamic rule will be established soon" and "Wait and see.... Get ready for directive"; the mainstream open "Islami" party has not yet denounced the bombing activities and bombing organisations by name; almost all the militant activists and leaders of JMB arrested were the members of Jamaat-e-Islami or their student front, and financial transactions related to organising the bomb attack have been made through their Bank accounts; and in almost all the cases, the mainstream Islamist party has lobbied for the release of arrested militants using their administrative support and government machinery, and in most cases they achieved the lobby-target, but where they failed, they announced that the arrested militant had been expelled from the party earlier. Such news was frequently published in all the prominent daily newspapers in Bangladesh: in *Prothom Alo*, September 21, 2005, titled "Five JMB leaders arrested in Chittagong were involved with Jamaat politics; Tk 160,000 was transacted through the Islami Bank"; the *Daily Star*, August 31, 2005 "34 Islamic NGOs get over Tk 200 cr. (USD 33 million) from donors a year"; the *Daily Star*, September 22, 2005 "Jamaat link to militants becomes evident"; the *Daily Ittefaq*, September 26, 2005 "Over 1000 militants have been released, and 40 per cent of them belong to Jamaat-e-Islami"; the *Daily Star*, December 5, 2005 "Just days before the November 29 carnage on two court premises, the government gave consent to release a fund of about USD 333,333 (Bd.Tk 20 million) to the Bangladeshi branch of a Kuwaiti NGO, Revival Islamic Heritage Society (RIHS), which is at the top of the list of suspected donors to Islamic militants in the country". More so, the Islamic Bank Bangladesh Ltd has been fined three times by the Bangladesh Bank (the Central Bank) for covering up "militant transactions" (see, Harrison 2013).

Society, Al-Muntada Al-Islami, Islamic Relief Agency, Al-Forkan Foundation, International Relief Organisation, Kuwait Joint Relief Committee, Muslim Aid Bangladesh. Their external financial support mostly comes from the Middle East. Many receive financial support even from the developed imperialist countries. It has been found that in many cases they receive money direct, the accounts of which are absent in government documents. The primary object of the NGOs under the control of fundamentalists is to reach the grassroots people using the platform of the institutions and subsequently establish and consolidate linkages between their political agenda and economic interest. When the mainstream NGOs are making efforts to empower women, the fundamentalist NGOs are not lagging behind. But they say, "Women's empowerment has to be achieved under the veil." In addition to the NGOs, the *economics of fundamentalism* is overactive in instituting trusts and foundations which are fully tax rebated.

comes from the pharmaceutical industry and health institutions, including diagnostic centres, 9.4 per cent comes from educational institutions, 8.0 per cent comes from real estate business, 7.4 per cent comes from the media and IT business, and 7.4 per cent comes from the transport sector (see Table 1). Although the above net profit earning is primarily based on heuristic estimates, the pattern is (at least) indicative of the direction. At the same time, this pattern of net profit earning by various sectors and sub-sectors of the economy of fundamentalism is in congruence with the trends of the mainstream economy.

If the economy of fundamentalism earns a net profit of about USD 367 million a year, in that case, the degree of communalisation of the Bangladesh economy—indicating the strength-extent of economic fundamentalism—will be equivalent to: 1.02 per cent of the annual national investment (at current prices), or 1.31 per cent of the private sector investment in the country, or 2.1 per cent of the government's annual revenue collections, or 1.54 per cent of the export earnings of the country, or 5.58 per cent of the government's annual development budget, or 8.62 per cent of the annual development budget of the government.

In addition to what is presented above, in understanding the future possibility of expansion of the economy of fundamentalism, it is essential to point out that the annual growth rate of the economy of fundamentalism is higher (annual average growth rate of 9.1%) than the annual growth rate of the mainstream economy (annual average growth of 5%-7%), and, therefore, as such there is no doubt that other things remaining the same, the communalisation of the Bangladesh economy will further mount. It is more so because the total amount of cumulative net profit of the economy of fundamentalism in Bangladesh during the last 40 years (1975-2015) would be at least USD 25 billion.

'Economy of Islamist Fundamentalism in Bangladesh' is not merely a reality; without a doubt, it is an all-encompassing and ever-increasing economy. It is an ever-increasing economy within the mainstream economy and, consequently, an ever-increasing religiosity in the cultural sphere of life. The direction of such causation is primarily determined by rising inequality, and our estimates in Table 2 adequately support the above notion.

In the last ten years, between 2005 and 2015, while the annual average growth rate of GDP was 5-7 per cent, the growth rate of the economy of Islamic fundamentalism was 9.1%. During the same ten years, the annual average growth rate in population was 1.175 per cent. However, the same for the enrolment of students at the religious schools (Aliya and Quomi Madrassas) was 1.32 per cent compared to 1.18 per cent in the mainstream schools (Primary plus Secondary schools and Colleges). During 2005 and 2015, the relative share of students in

*Table 1: Sector-Institution wise breakup of annual net profit of economy of fundamentalism in Bangladesh- estimates for 2015**

Sector-Institution	Annual net profit (in US\$ million)	Percentage share in total net profit
Financial Institution:		
Bank, Insurance, Leasing Company.	101.8	27.8
Trading organization:		
Retail, Wholesale, Departmental store	39.0	10.6
Pharmaceutical Industry, Health Institution including Diagnostic centre	36.6	10.0
Educational Institution:		
School, College, University, Coaching Centres	34.6	9.4
Transport and Communications:		
Rickshaw, vans, three-wheeled CNG, Car, Truck, Bus, Launch, Steamers, Ocean-going Vessels, etc.	27.2	7.4
Real Estate: Land, Building	29.3	8.0
Media and IT	27.0	7.4
NGOs, Trusts, and Foundations	71.0	19.4
Total	366.5	100

* About the methodology of estimation: The author first presented this estimation in 2005 (for details, see Barkat Abul 2005a, 2005c, 2006a). A heuristic method has been followed in estimating the profit of economic sectors-institutions. Although the process is based on assumptions, estimation is scientific to a large extent. In this regard, expert opinion of various sectors has been taken. In some cases, the estimates may be more or less than the actual figure (absolute truth is not known to anyone; that is not published.) Although formal data about investment is available in the case of a few sectors-institutions (which is again not close to reality), in most cases, such data are absent/unpublished. Also, though the published audit report and/or annual report are available in some cases, in most cases, they are incomplete and highly inaccurate, and therefore, totally misleading.

secular education has declined, and that in the religious stream has increased. The most alarming was the case with Quomi Madrassa, with an annual average growth rate of the number of students surpassing all types of the education system-reaching at 1.79 per cent; they constitute 15.7 per cent of all students and 55.9 per cent of all madrassa students in Bangladesh (and the trend shows upward movement). All these are happening in a context when inequality is rising: during the last ten years (between 2005 and 2015), the Gini coefficient reached 0.482 in 2016 (from 0.467 in 2005), and the Palma ratio reached 2.92 in 2016 (from 2.62

in 2005). Scrutiny of our estimations presented in Table 2 would be adequate to conclude 'dangerous time ahead' attributed to the economy of Islamist Fundamentalism in Bangladesh.

Furthermore, a few points can be added with a high degree of certainty to substantiate the analysis of organization and management decisions of the economics of fundamentalism and associated extremism. These are as follows:

First, they have invested both for short-term and long-term benefits in the sectors in which it is possible to earn the highest possible profit. It means that whatever interest they display about life hereafter, they are more conscious than anyone else about the material life in this world. *Second*, they are primarily interested in strategic investment. *Third*, they have chosen such sectors for investment which allows them to reach more people with higher speed. *Fourth*, their sector-wise investment portfolio is highly balanced. *Fifth*, it is possible for them to appoint 500,000 full-time cadres in organisational work by spending only 10 per cent of the net profit. They do so and provide cross-subsidy to other sectors from the net profit. *Sixth*, they (mis) use their political and economic power (using *Jihad* as the pretext) for placing their ultra-communal cadres in a planned way in critical strategic positions of the government, autonomous and semi-autonomous bodies, and in private sector institutions.

In order to sharpen our understanding of the emergence and pattern of Islamist fundamentalism and extremism, it would be appropriate to indicate a few more things associated with the expansion and prospect of economics and related politics of fundamentalism and extremism in Bangladesh. The fact is that; we were complacent – to a large extent – with our Independence following Liberation War 1971. The reason for such is self-explanatory. As a nation, we have seen for the first time that the whole nation-building effort will follow the principles of democracy, nationalism, socialism, and secularism. If religious feelings of the mainstream people are liberal and humanistic and if those have been ingrained in our mental frame for generations, in that case, there will be all the good reasons that those four principles are consistent with our dormant ambitions and aspirations, which can be termed "DNA factor". The reason for our self-complacency could probably be: We were the first in the third world and mainly first in the Muslim majority countries to include secularism in the Constitution (of 1972; of course discarded later on with the inclusion of "Islam will be the state religion". We were satisfied with the reflection of our dormant aspirations in our Constitution. However, religious ultra-communal forces – the 'war criminals' and collaborators of the Pakistan army whom we pardoned (and thus we became the bearer of mainstream Islam) – understood it clearly that the state was being run

Table 2: Trends in GDP, population, economic inequality, the economy of fundamentalism, and education (secular and religious), Bangladesh, between 2005 and 2015

Sl. Indicators	2005	2015	2015 as times of 2005	Annual average growth rate between 2005 and 2015
1. Gross Domestic Product (GDP in BDT billion)	6,039 ¹	18,604 ¹	3.08	5%-7%
2. Economy of fundamentalism (annual net profit, in BDT billion)	12.00 ²	28.74 ³	2.40	9.1%
Economy of fundamentalism as % of GDP	0.20	0.15	0.78	-
3. Economic inequality (income inequality):				
- Gini coefficient	0.467 ⁴	0.482 ⁵ (2016)	1.03	-
- Palma ratio	2.62 ⁶	2.92 ⁶ (2016)	1.11	-
4. Population	139,035,505	156,256,287	1.12	1.175%
5. Education: Religious and Secular streams				
# Students of Madrassa (Aliya+Quomi)	9,631,187 ⁷	10,980,000 ⁸	1.14	1.32%
# Quomi Madrassa students	5,142,707 ⁷	6,140,000 ⁸	1.19	1.79%
-Enrolment in mainstream (Primary+Secondary+College)	24,991,456 ⁹	28,105,934 ¹⁰	1.12	1.18%
Total students	34,622,643	39,085,934	1.13	1.22%
% of students in secular stream	72.2	71.9	0.996	-
% of students in religious stream	27.8	28.1	1.01	-
Quomi students as % of total students	14.85	15.71	1.058	-
Quomi students as % of total madrassa students	53.4	55.9	1.047	-

Source: (1) Bangladesh Bank (2019). *Time series data since 1972*. Retrieved from (accessed on 06 April 2019), (2) Barkat A. (2005a). *Bangladeshe Moulobader Arthoniti* (3rd Edition), Dr Abdul Gafur Memorial Lecture-1, Dhaka: Jatiyo Sahityo Prokashoni, p.18. Dhaka., (3) Barkat A. (2016a). *Political Economy of Religion-based Extremism in Bangladesh: When in a Unitarian Imperialism External Causes Override Internal Causes*. In International Conference on Secularism, Democracy and Gender Parity in South Asia organized jointly by University of Dhaka, Research and Development Collective, Maulana Abul Kalam Azad Institute of Asia Studies (India), and the India-Bangladesh Foundation. Dhaka: University of Dhaka, p. 43, (4) Bangladesh Bureau of Statistics (2011). *Report of the Household Income & Expenditure Survey 2010*. p. 30, (5) Bangladesh Bureau of Statistics (2019). *Household Income and Expenditure Survey 2016*. p. 31, (6) Author's Estimate based on *Time-series data since 1972*. Retrieved from (accessed on 06 April 2019), (7) World Bank (2019). (8) Barkat A. et al., (2011). *Political Economy of Madrassa Education in Bangladesh: Genesis, Growth, and Impact*. p. 129, (9) Barkat A., et al. (2011). *Political Economy of Madrassa Education in Bangladesh: Genesis, Growth, and Impact*. pp. 129, 292, (10) Barkat A., et al. (2011). *Political Economy of Madrassa Education in Bangladesh: Genesis, Growth, and Impact*. p. 293, (11) Bangladesh Bureau of Educational Information and Statistics (BANBEIS 2016). pp. 57, 73, 117.

make no fundamental change in the life of the people. Within a few years, they could foresee that our people would be de-motivated about the present leadership.

Moreover, if they make good use of the opportunity, their (the defeated forces in the Liberation War) victory would be inevitable. In contemporary periods, progress was relatively slow, but the religious forces marched forward with relatively high speed and took all the opportunities and preparations in secret. The result of such preparation was capturing the villages using deep tube-well centric society, peasant society, Mosque and Madrasa-whatever is the medium, establishing an undisputed stronghold in religious institutions, capturing the state institutions, capturing the economic- activity based institutions, and in the name of private institutions taking position among the low-income group people of the villages and towns and strengthened their presence. To execute this strategy, the economic institutions of fundamentalists played a targeted role. Likewise, due to adopting this strategy, those institutions were also strengthened. More so, all these combined generated synergistic effects. In this respect, religious fundamentalists were not idealistic in giving political leadership; they were realistic manifold. Following this process, during half a century, they have now reached a position where they can get an average vote of 15,000 people in each parliament seat (an average of 75,000 votes needed to win a seat). At the same time, they have now acquired the capacity to spend millions of black money and use muscle power in national parliamentary elections.

On the other hand, as displayed on 17th August 2005, they can organise nationwide serial bomb blasts with 100% military accuracy. More so, under the banner of Hefazat-e-Islam, on 5 May 2013, they have “invaded” the capital city Dhaka, displaying potential ‘Kilal’ like strength (i. e., the strength of frontal fight, which is the 4th and final phase of Jihad). In addition, during the last four years (2013-2016), the Ansarullah Bangla Team (ABT) has already killed 11 bloggers, free-thinking intellectuals; all of them are displaying their muscle power as well as the power of provocation throughout the country using all means including high-order information and communication technology. Moreover, on 5th September 2015, the banned Hijbut Tahrir organized a video teleconference inviting people to participate in toppling down the government and establishing Islami Khelafat; this has been televised throughout the country! In addition, on 1st July 2016, in a restaurant located in the diplomatic enclave of Dhaka, they have brutally killed 24 innocent people with 18 foreign citizens. By no means is this a weak opponent. On the contrary, this is a strong force representing a triangle of power with their open political party, the Jamaat-e-Islam as the corporate HQs and Islamist militant organizations (132 in numbers) and economic of

fundamentalism and NGOs and trusts as the two other arms of that triangle (see Figure 5).

Therefore, the situation has reached such a stage that even over 12 years ago from today, I consciously and cautiously portrayed the situation as below:

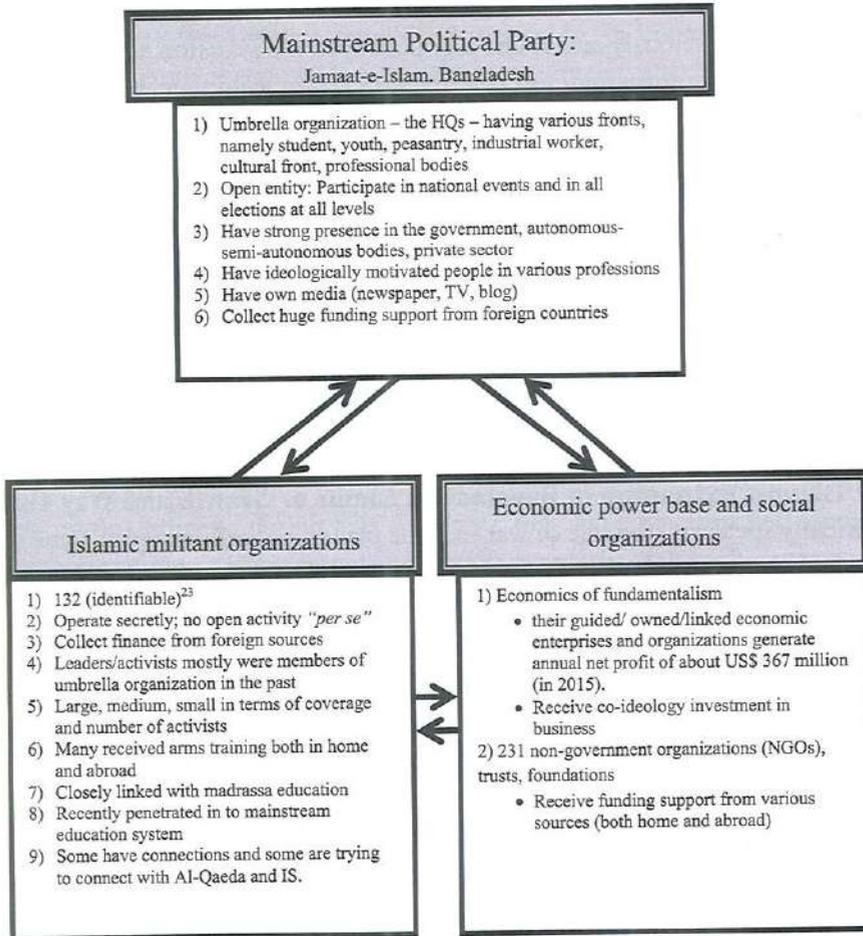
“The religious communal forces know for certain what they want. As against these, we do not know what we want. They are well organized to achieve their goal; we are unorganized. They do not hesitate about their aim and object, as we have confusions against this. They believe deeply in whatever they do. However, it seems we have lost confidence in ourselves. They can perfectly use the frustrations of the ever-growing unemployment among the youths to lead them to parochial interest. On the other hand, we avoid movement and struggle against poverty and frustrations due to unemployment among the youth. Our lack of clarity of thoughts, inactions, and disunity became blessings for the defeated forces” (Barkat 2004b).

8. Islamist Extremism in Bangladesh: Limits to Growth and Way Out

Historically speaking, the role of war in some places, peaceful ways in some other areas, and the mixture of the two in other places in the propagation of various religions, including Islam, is well known. It is notable that wherever sword war was used to propagate religion, outcomes were either monarchy or a repressive state. However, wherever a religion was propagated in a relatively peaceful way - for example, in our country where the Ulamaa’s, Sufi’s, and Devotees propagated Islam - in such places, a religion based on ultra-communal politics could not get a firm root. On the contrary, wherever the religious leaders tried to conduct the statecraft with the help of religion, they faced opposition. It is most likely because people have become religious-minded (pious) over generations due to the peaceful propagation of religion and following religious rites, but they never became dogmatic religionists. It means that the perception of religion, i.e., religiosity, has become the vehicle for communal harmony to a large extent as against communalism. This deep sense of harmony based on the humanitarian essence of religions is evident in the origin of Islam in East Bengal.

Moreover, the evolution of such a process has deeply ingrained that into the minds of Bengali-Muslims (which I term as “positive DNA factor”). It is why whatsoever strength economic fundamentalism and associated extremism may have acquired in Bangladesh; it is most likely that, if appropriately addressed with most entire possible political will and commitments, it would not be possible for them to capture the state power by using that economic and political strength. In

Figure 5: A simple model showing strategic interdependence of Islamist extremist forces in Bangladesh



²³. The identity/name of these organizations are mentioned in Barkat (2018). As part of his comprehensive and in-depth research on “Political Economy of Islamist Fundamentalism in Bangladesh” the most part of the accompanying list has been prepared by the author of this paper during 2002-2005 period. Those identified after 2007 have been added in the above list. Most of the groups in the list are militant armed groups. Some of those groups are sub-local; some are local; some have wide areas of operation; some have international links. After the publication of this some of the Islamist militant organizations have been banned by the government though this does not mean stopping of activities by the banned organizations. In 2005, government has banned activities of the following 5 Islamist militant organizations: Harkat-ul Jihad Al-Islam, Jagrata Muslim Janata Bangladesh (JMJB), Jamah-tul-Mujahedeen Bangladesh (JMB), Harkat-ul Jihad Al-Islami Bangladesh (HUJI-B), and Shahadat Al-Hikmat. The government has banned activities of Hijb-ut-Tahrir in 2009 and Ansarullah Bangla Team on 25 May 2015. In addition, the government has blacklisted the following extremist outfits: Hizbut Towhid, Olama Anjuman al Baianat, Islami Samaj, Allahar Dal, Ta Amir-ul Din Bd, Towhid Trust, and Islamic Democratic Party.

this regard six examples presented below are adequately indicative enough to show the inherent strength of the above stated “positive DNA factor”:

First, in Bangladesh, due to the Enemy Property Act or Vested Property Act, a total of about 2.6 million acres of the landed property of 6 million Hindus have been grabbed by only 0.4 per cent Muslims (if the snatchers are all Muslims at all). It implies that 99.6 per cent of Muslims are not involved in grabbing landed property of people belonging to the other religions (some people try to show it as a Hindu versus Muslim conflict).

Second, whatever help the state might have given to the communal fundamentalists of Baghmara-Bangla Bhai (JMJB), people of the locality unitedly faced them. It is the outcome of inherent secular feelings among the majority Muslims of Bangladesh.

Third, in 1985 when the roof of the massive dormitory of Dhaka University, Jagannath Hall, collapsed, people irrespective of their religious identity came forward to donate their blood to save the wounded students. All of the victims of that tragedy were Hindus by religion, which probably indicates the inherent power of secular feelings among most Muslims in Bangladesh.

Fourth, how the mass people came forward to protest against the planned mass massacre made to the Buddhist Community by the Jamaat-Islamic extremists in Ramu of Cox’s Bazar in 2012 (27-28 September), isn’t it a reflection of the inherent non-communal feelings of the ordinary people of this country?

Fifth, since February 2013, irrespective of race-religion-cast-rich-poor, the bold stand the young generation (the *GonoJagoran Monchho*) against fundamentalism, and the situation continues, isn’t it enough to prove that the young generation of this country is fully imbued with the spirit of liberation-freedom? Is not it proof that the young generation comprising over 50 per cent of the people of Bangladesh is adequately conscious of and ready to counter all forms of religious extremism?

Sixth, containing positive DNA of Islam, whether any ordinary Muslim of this country supports the activities of the suicide bombers? Or, almost all Muslims in this country sincerely believe that the misdeeds of the fundamentalist and extremists are deep intrigue and impiety in the name of religion?

The greatest danger in the rise of politics and economics of Islamist fundamentalism and extremism in Bangladesh lies in the *institutionalization of fundamentalism*, implying organized penetration of Islamist fundamentalists forces (with ideology assimilating *mythos* of religion with *logos* of reality) in all critical spheres of life and state operation, namely in economic sectors, in political institutions, in critical positions in the administration and judiciary, in government –autonomous–semi-autonomous bodies and private sectors, in educational

institutions with predominance in Madrassa system (and most recently in the mainstream education system), in health, in NGOs, in women's organizations, and many professional bodies. Because of their command of over 5-7 per cent votes (more importantly, their rate of casting a vote is almost 100 per cent), within an equi-strength bi-partisan political system (the two major political parties in Bangladesh are Bangladesh Awami League and Bangladesh Nationalist Party) the major mainstream Islamist party is strategically well-positioned in forming the government after the national parliamentary election. Moreover, they use this strength to their advantage in further institutionalization of Islamist fundamentalism. The degree of this institutionalized strength of Islamic fundamentalism and extremism is evident, among others, in their following statements of last ten years, which are adequately indicative of what is there in their mind:

"We are not a drop of water on betel leaf that a nimble touch would just make us fall" (Jamaat-e-Islam Bangladesh).

"You will misjudge our strength if you try to understand us by the number of our seats in the parliament" (Jamaat-e-Islam Bangladesh).

"Wait and see, Islamic shariah rule will be established soon" (JMB, JMJB).

"Suicide is a great sin in Islam, but it is permissible in "Jihad" (Jamaat-e-Islam Bangladesh; JMB, ABT).

"Man-made Constitution should be replaced by the Shariah Laws" (JMB, JMJB, ABT, HUJI-B).

"Be ready to face a civil war" (Hefazat-e-Islam).

"The fight of the people believing in only one Allah will continue till our 13-points demands are not fulfilled" (Hefazat-e-Islam).

"We demand hanging of the leaders of the People's Awakening Platform of Shahabag Gono Jagoran Monchho" (Hefazat-e-Islam).

"We demand capital punishment of all those who speak anything against Islam" (Hijbut Tahrir, Shahadat-e-Hikma).

"We demand hanging of atheists without trial" (Hefazat-e-Islam; Ansarullah Bangla Team).

"Topple down the government now and establish Khelafat" (on 5 September 2015 through nationally televised video conference by a banned extremist organization, *Hijbut Tahrir*).

In addition to what is stated above, the relative strength of *institutionalized fundamentalism* and associated extremism is also evident in the formation and operation of the Islamic Shariah Council against the usual norm of the Central

Bank (the Bangladesh Bank). The Islamic Shariah Council- the central policy-making body of all Islamic financial institutions – is a body fully controlled by the mainstream Islamist party and headed by the *Pesh Imam* (the head) of the National Mosque, who is a government servant who preaches in favour of the implementation of Shariah rule through mosque-based administration and judiciary. According to the Company Act and Banking Act operating in Bangladesh, this Islamic Shariah Council is illegal.²⁴

In addition to its institutionalisation, the danger of religious extremism lies in the 'logos' part of its political ideology reflected in its pragmatic ('beyond dogma') actions. It is evident, among others, in the following 'realistic'(!) strategic political statement of the mainstream Islamist party—the Jamaat-e-Islami Bangladesh:

"Women leadership (as head of the state and/or government) is not recognized in Islam; however, women leadership is acceptable if 'we' are in alliance with party-in-power."

"Profiteering (bank interest) is a sin in Islam; however, it is allowed if 'our' financial institutions practice profiteering with a different name."

"The United States of America is enemy of Islam, but US intervention in Iraq is not a problem if 'we' are in power (in Bangladesh)."

"India is an enemy State, but there is no problem signing an unjust contract/ agreement if 'we' are in power (in Bangladesh)."

The secular and humanistic origin of Islam in East Bengal provides adequate rationale to be complacent about the future secular development of Bangladesh. However, in reality, there is no logical room for complacency. It is not only because of the global non-congenial context for the same. On the one hand, the politics of Islamist extremism is based solely on dogma and devoid of any reasoning. On the other, the economic power-based political process has already been institutionalized, to a large extent. Both economies of fundamentalism and politics of religious-militant extremism have gone too far, and damage can be irreversible if not addressed timely and intelligently. For many countries globally, including Bangladesh, this is ultimately an issue of building a progressive society for our future generations. Therefore, the fight is more political than just intellectual. The way the basis of the economics of Islamist extremism has

²⁴ It is important to note that almost all banks of national and foreign origin across Bangladesh – have Islamic *Shariah* window; and many of them use the word "Islam" as part of the name of their Banks. The same is happening in case of other financial and non-financial enterprises including industries and service sectors.

extended and is expanding — the fight has to be total, all-encompassing, multi-dimensional, and multi-faceted. This fight is against a regressive mindset by the progressive forces. For the Sufis, Devotees, and enlightened religious learned persons, this is a fight against anti-humanist communalism for re-establishing the humanistic trend of Islam in East Bengal. Therefore, in this fight, on the one side, to face the ultra-communal parochial trends of Islam, the humanistic proponents of Islam — the Sufi's and Ulama's must stand — as they are historically the proponent of mainstream Islam, they should unite together, and on the other hand, secular non-communal feelings and free-thinking which form the basis of liberty and freedom should pave the way for expanding the humanistic state system. It can be the only way to weaken the undesirable economic basis of fundamentalism and associated religious extremism. *Economics of fundamentalism* and related ultra-communal politics — both are backward. Therefore, to remove such religion-mediated backwardness and ensure progress, there is no alternative but to devote all-out efforts towards uniting people based on the actual process of enlightenment.

Based on the nature of the evolution of the political economy of religious fundamentalism and associated extremism, it is inevitable that if we think that all the relevant problems will be solved instantly, then it will be a denial of absolute truth and, out of mere emotion may lead to a historical blunder. It is impossible to extirpate the communal extremism immediately because, within a few days, it is impossible to break the economic and social foundations (both local and global) on which it is grounded. The accelerated implementation of a “damage minimizing strategy” and a “risk reduction strategy” is possible now. As a short term solution, the “damage minimization strategy” may be to pursue a set of doable at a time: (1) To arrange a third-party audit to uncover the Jamaat-extremist connection with the economy of fundamentalism, i.e., to uncover the pathways and nature of financial transactions of the fundamentalists. It should include the transactions through Hundi/ Hawla and e-transactions. The outcomes may include nationalisation, confiscation, legal transfer, changing management, changing Board etc.; (2) By rapid trial to execute the punishment of those who made crime against humanity and war-crime in 1971, and are also the god-father of fundamentalism-extremism (if possible, by the year 2018); (3) To publish-circulate in the mass media whatever is known to the government about the source of funding and fire arms including explosive of the extremists; (4) To stop the channel of money and arms of the extremists; (5) To confiscate the wealth of extremists; and use the same for the 1971 martyrs, crippled, leading insolvent life, and for those who died due to fundamentalism — extremism; (6) To arrest and

give exemplary punishment to them all who are directly-indirectly related with extremist activities; (7) To identify those who, within the government, are promoting religious extremism; (8) To strengthen people's movement to ban religion-based communal politics; (9) To launch profound awareness raising efforts for the mass people to unveil the real face-aims-objectives of the extremists so that people spontaneously participate in the process of countering religious extremism. In this immediate and short-term programme, the state and the government need to play a proactive role at one end. At the other end, a united, well-organized movement of the secular political-social forces need to be built in rural and urban areas.

Furthermore, there may be only one long-term solution to establish a secular mindset. It needs to implement the political promises, including removing all economic, social, and political inequality sources. There is no other alternative but to pursue conscious efforts to unite all secular people to implement short-and long-term solutions.

Now, before I deal with some of the unexplored areas and newly-learned issues (which I call *second-order* way forward) and come to the point of what has been done in Bangladesh in countering religious extremism as well as what others can do, it would be appropriate to recapitulate what has already been said, which is as follows:

The expanded religious fanaticism, armed communalism, and associated fundamentalisation of the economy are not a simple social problem *per se* (among many other problems). It some what indicates a deep-rooted crisis of embattled faith rooted in increasing inequality and fear. The crisis emanated from politics of communalism and economics of fundamentalism can be overcome only through enlightened political movement guided by courageous, patriotic leadership backed by substantive public actions. I see the seeds of success in both the essence of the evolution of Islam in East Bengal, which is secular, humanistic, and democratic and in the Bangladesh people's history of already displayed strength in fighting odds against liberty and freedom. One should not forget and discount the fact that Bangladesh people fought successfully for their right to language (1952), right to say no to neo-colonial governance (1954), right to upsurge (1969), right to liberate and enjoy independence (1971), and right to throw out military autocracy (1990), and fight for the punishment of 1971 War criminals and against religious fundamentalism (Shahabag 2013). The ground for hope is historically fertile in Bangladesh. The only thing needed is to timely and appropriately cultivate the ground based on the spirit of democracy, secularism, nationalism, and socialism — the foundation stones of the 1971 Liberation War and the basis

of the 1972 Constitution of Bangladesh. In the long run, fighting religious extremism by keeping mass people unempowered and poor is a dubious proposition. It is time to devise the most appropriate strategy to simultaneously negotiate rising religiosity with rising inequality – a problematic practical issue to resolve because one breeds the other.

In the ultimate analysis, economic exploitation itself is the crucial source and origin of all sorts of fundamentalism – religious and ethnic, socio-cultural and political, national and global. Exploitation creates and procreates alienation and inequality in all the spheres of social life, which, in turn, paves the way for expanding all possible routes of fundamentalism, including religion-based fundamentalist militancy.

9. ‘Jihad’ in Bangladesh: From ‘Dawa’ to ‘Kilal’.

What is New? What has been done? Who can do What?

“There are 1.3 billion Muslims today worldwide. If the 7% (91 million) of the politically radicalized continue to feel politically dominated, occupied, and disrespected, the West will have little, if any, the chance of changing their minds.”

—John Esposito and Dalia Mogahed, 2007

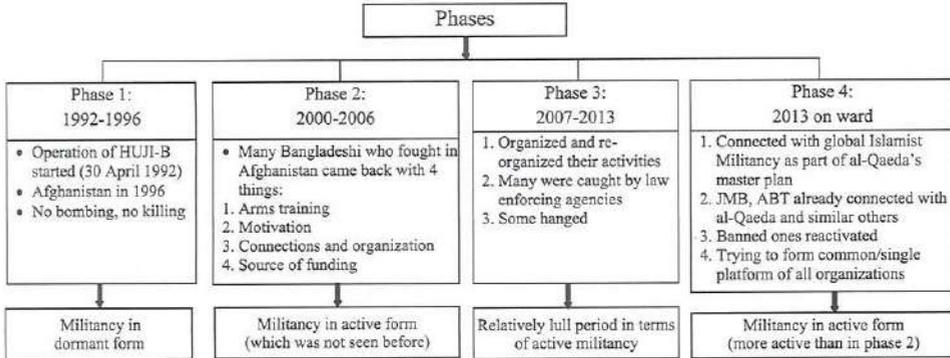
In the relevant academia and the counter-extremism intelligence, many things about mission, vision, formation, organization, funding, operation, linkages of the religious extremism and extremists are more or less known irrespective of extent, validity, and accuracy of that knowledge. However, based on my twenty years of research experience in the relevant field, I can conclude with a high probability that our knowledge base and practical action in countering religious extremism – are still limited. On this, there are still many “unknown unknowns”; there are lots of speculation; there are lots of confusions; there are lots of either underestimation or overestimation on specific pertinent issues; there are many unexplored issues; there are many emerging issues some of which we learn after a long time lag when it is too late to know about. These are true for global, regional, national, sub-national, and local.

Keeping the above stated in view, let me, first of all, share my research-based knowledge about al-Qaeda – the corporate headquarters of Islamist extremism (while writing it, I am fully aware of almost all published materials about al-Qaeda). Al-Qaeda had a draft Master Plan prepared in around 1995-1997, and then they have finalized the master plan aiming at establishing Islamic Shariah-based states in many countries. The critical specific time-bound strategic mission-components in al-Qaeda’s Master Plan are as follows:

1. The Plan divides the timeline of their vision into five key phases: 2000-2003 (phase 1), 2003-2006 (phase 2), 2006-2009 (phase 3), 2009-2012 (phase 4), and 2016-2025 (phase 5).
2. By the end of phase 5, i.e., by 2025, the ‘Khelafat’ rule will be established in Muslim population-dominated countries.
3. No country will be there which will be out of Khelafat rule for 100 years. Quoting Hadith, the plan predicts that since the last Khelafat — Hajrat Osman’s Khelafat was dissolved in 1924, 100 years after that, by 2024-25 again, Khelafat rule must be instituted. Moreover, all activities shall be directed to materialize that.
4. Taleban will retake Afghanistan by 2016 (i.e., in the early days of phase 5).
5. In the process of retaking of Afghanistan, they will create a “threat belt” comprising of India (specifically Kashmir, Ahmedabad, Gujarat, Assam, and Seven sisters; and they will destabilize seven sisters by 2018), Myanmar (especially Arakan with Rohingya), and Bangladesh (from geographic and geopolitical consideration).
6. They will organize two “Manama,” meaning World Wars. The first “Manama” will occur in the “Hind Zone,” i.e., India, Pakistan, Bangladesh, Myanmar, Nepal, Bhutan, Afghanistan. The Second “Manama” will occur in the “Sam Zone,” meaning Syria, Jordan, Palestine, and surrounding areas.
7. In realizing this Master Plan, they will pass through all four stages of “Jihad”, namely “Dawa” (meaning inviting people and conveying their messages using all forms), then “Edad” meaning all sorts of preparatory work, then ‘Ribat’ meaning minor scale clashes, and then finally, ‘Kilal’ meaning frontal war.”

The second less explored and less known issue is related to the transformation of Islamist extremism in Bangladesh and their relationship with the global extremist outfit — Al-Qaeda. I have already provided the list of 132 radical Islamic organisations in Bangladesh that promote Islamic political activism. Now, the issue is when and how these organisations emerged and whether a phasing with a timeline and content can be worked out or not? Here, my answer is “Yes”, based on substantive facts and arguments. According to my informed judgment, in terms of a timeline, the Islamist extremism in Bangladesh can be categorized into four phases: 1992-1996 (phase 1), 2000-2007 (phase 2), 2007-2012 (phase 3), and 2013 onward (phase 4) (see Figure 6).

Figure 6: Transformative phases of Islamist Extremist organizations in Bangladesh



Source: Developed by the author (Barkat 2018)

Formally speaking, Islamist extremism started in Bangladesh on 30 April 1992 with the formal declaration of their operation by Harkat-ul-Jihad-al-Islami Bangladesh (HUJI-B). This first phase is related to the Afghan War in 1996. This phase can be termed “Militancy in the dormant form” (because we have not seen any bombing or similar attacks). The second phase, 2000-2007, can be termed “Militancy in Active Form”. In this phase, many of the militants who fought in Afghanistan came back to Bangladesh with four substantive weapons of Islamist extremism. They brought with them (1) Jihadi arms training, (2) Jihadi motivation, (3) Relevant connections and organisations, and (4) Source of the fund. The third phase, 2007-2012, is a lull period of active militancy. However, they have used this phase to organise and reorganise their future activities for the next phase. In my view, the fourth (and so far final) phase, 2013 onward, is the most dangerous phase coinciding with the phasing-plan of al-Qaeda’s Master Plan. This phase may be termed the “Second phase of Active Militancy”. In this phase, many Bangladeshi Islamist extremists have already made connections with al-Qaeda or are trying to establish living contacts and connections with international Islamist extremist organizations. The banned extremist outfits JMB and ABT have already established links with al-Qaeda. They are trying to work with all other militant organizations in Bangladesh under a common platform.

The question is — in which phase of Jihad (which has 4 phases) do we keep lingering. I am sure we have crossed phase 1 of Jihad (i. e., Dawa), we have crossed phase 2 of Jihad (i. e., ‘Edad’), and in some senses, we have also crossed phase 3 of Jihad (i. e.; ‘Ribat’ meaning minor clashes). Then are we in the last phase, i. e., Phase 4 “Kilal” meaning ready for the frontal fight? I think Islamist extremism in Bangladesh can impartially be positioned as something between

phases 3 and 4, i. e., transforming from small classes to getting ready for frontal war. It would be self-satisfying and good if I am found wrong on this. However, I have no substantive reason to believe that my idea about this is wrong.

Moreover, this brings to the grave and complex issue of what has been done already and who can do what in countering religious extremism in South Asia and globally. Globally-because the issue, to me, is an issue of “potential global catastrophe”. Therefore, countering religious extremism’s “think globally act locally” formula may not work. Instead, the more feasible and necessary formula should be “think globally, act globally, act concertedly, act with zero tolerance” (I know some might argue differently by bringing some lame arguments!). Considering complexity and reality, I have already pointed out that the best strategy can be joint persuasion of “Risk Reduction Strategy” and “Damage Minimizing Strategy” simultaneously.

Under these potentially catastrophic contexts, the pertinent issue here is what the Bangladesh Government has already done and is planning to counter Islamist extremism in Bangladesh. Without putting any marks on the score sheet, let me list out actions the government of Bangladesh has taken. Among the many actions taken by the government, the key ones are as follows: undertaken a “Zero Tolerance Policy” towards all forms and sorts of terrorist acts; prepared a draft Counter-Terrorism Strategy and Anti-Terrorism Act 2009; banned six most dangerous Islamist extremist organisations; black list seven most suspected Islamist extremist outfits; enacted Anti-Terrorism Act 2009; formulated Anti-Terrorism Act rules 2013; enacted Anti-money laundering and combating terrorist financing Act 2012; formed Counter-Terrorism Intelligence Bureau (CTIB) to deal exclusively with counter-terrorism issues (which has dedicated CT professionals to address CT’s surveillance, analysis, and operation aspect; a core working group coordinates); organise regular coordination meetings on the subject among the intelligence and law enforcement agencies; activated all counter-terrorism intelligence organisations (DGFI, NSI, Armed forces intelligence organizations, Special Branch, Detective Branch) and law enforcement agencies (police, RAB, Ansar, VDP); coordinate various aspects of counter-terrorism each month through the National Committee for Intelligence Coordination chaired by the Honourable Prime Minister; coordinate all stakeholders working in counter-terrorism by the Ministry of Home Affairs; formed Bangladesh Financial Intelligence Unit (BFIU) as a national Committee under the Ministry of Finance, which monitors and formulates policy to counter-terrorist financing; undertaken counter-radicalisation programme; launched

general awareness and motivation campaign to make people aware of the negative impact of religious extremism; signed SAARC Regional Convention on Supervision of Terrorism (in 1987) and Additional Protocol, 2004 (for details, see Barkat 2015b).

From a Neurotheology point of view (which I will explain relatively elaborately in the next section), the activity of “*organising delivery of correct messages of Islam during Friday Jumma prayer*” can be treated as one of the most effective and ethically correct ways of raising people’s awareness about the correct interpretation of Islam as well as countering Islamist extremism. It is simply because today (in 2016), out of 160 million people in Bangladesh, an estimated 26.4 million Muslim male population aged five years and above attends Jumma prayer (which is 39.5% of the Muslim male population aged five years and above). Moreover, this estimated 26.4 million people who attend Jumma prayer also propagate their learning to many others, i.e., this has a multiplier effect. Financially, this is almost a zero-cost intervention with a higher invaluable social return. Because official data on the total number of mosques and number of people attending Jumma prayer are not available — to avoid any confusion — it would be appropriate here to put on record the methodology used for the estimation. In estimating the number of people who attend Jumma prayer, the following data and assumptions were taken into consideration: (1) the total number of mosques in Bangladesh is 264,940 (it was 191,986 in 2008, see Barkat et al. 2011); a 4.7 per cent annual growth rate in the number of mosques has been assumed (the annual growth rate in the number of Madrassa between 1970 and 2005 was 4.7%); (2) the total population in 2016 has been 160 million of which 51.5 percent male and 49.5 percent female; and 90 percent of the population is Muslim; (3) It was assumed that it is most likely that only Muslim male population with age five years and above are eligible to attend Jumma prayers (which equals to 66.8 million people); (4) it was assumed that on average 100 Muslim male population per mosque attends Jumma prayers (which equals to 26.4 million people).

Religious extremism is locally manifested but a global issue. Therefore global partners must be proactively engaged in countering religious extremism, in which simultaneous persuasion of “Risk Reduction Strategy” and “Damage Minimizing Strategy” should get priority. Keeping this in view, I would like to forward some suggestions about what the governments of the other countries can think of doing or consider in countering worldwide religious extremism (and more specifically in Bangladesh). Based on my knowledge about the subject and discussions with the relevant stakeholders in Bangladesh, I would like to forward the following suggestions which each government may consider:

1. Provide sponsorship support to some of the counter-radicalisation programmes (e. g., sharing of knowledge through the seminar,

workshops, conferences, sharing intelligence, one-to-one meetings involving academia, intelligence professionals, relevant civil society, experts in theology, experts in Neurotheology and human behaviour, and organize rigorous, meaningful media campaign and exposures).

2. Provide funding and technical assistance support in eliminating the critical sources of religious extremism. These may include support in reducing poverty, disparity, inequality; in improving progressive content of education curriculum; in assisting in enhanced access of children from low-income families to mainstream education; in reaching young people with all pertinent information about the potential damages of religious extremism; in auditing relevant financial institutions through deploying competent Audit firms.
3. Provide financial and technical support to the complex re-radicalization programme (the Bangladesh prison authority is not knowledgeable and technically competent enough).
4. Assist in Cyber Space management.
5. Provide capacity-building support to the relevant intelligence.
6. Provide technical assistance support to establish a real-time central database for immigration purposes (all immigration including air, land, water).
7. Assist in the CVE programme on public awareness building.
8. In providing grant aid support to the NGOs, carefully scrutinize the link of the NGO with religious extremists and accordingly take decisions. Promote NGOs working with poor and marginalized people, excluded people, women, and those promoting secular values.

The above-stated suggestions and considerations may be seen as supply-side suggestions from many governments sides. However, supply creates its own demand. The demand side suggestions for considerations may be as follows:

1. Based on experience, the rich country governments need to seriously review the “War on Terror” policy; and adjust or reformulate it accordingly.
2. They need to re-find out and address the root causes of religious extremism.
3. They need to emphasize the complex social-economic-cultural-diplomatic solution rather than the military solution addressing religious extremism.

4. They need to think about a non-imposed solution (i.e., a solution from outside that lacks the party's sense of ownership on the other side of the table).
5. They need to take proactive initiative towards activating regional forums to address the potential catastrophic related to religious extremism, and more importantly, the causes of religion-based fundamentalism and militancy.

10. Understanding Neurotheology Matters in Addressing Religious Extremism: Religion and Brain

Almost all of us in this 8 billion — people world want to live in peace and prosperity; we all want well-being — individual and social; and almost no one wants to live in a society dominated by backwardness, religious fanaticism, communal in fights, and a situation of life-threatening insecurity. Therefore, to draw any feasible and practically implementable plan for “Countering Religious Extremism”, in addition to economic, social, and political causalities of rising and operation of religious extremism, to understand why religion matters. In this connection, we need to understand the following, among many other relevant issues (some of which have already been discussed): Why are so many people religious? What are the evolutionary advantages of religion? What constitutes a religious brain?

In today's world, around ten thousand different religions exist. Each religion is convinced that there is only one Truth and that they alone possess it. Hating people with a different faith seems to be part of belief. Around 1500, the church reformer Martin Luther described Jews as a “brood of vipers”. Over the centuries, the Christian hatred of the Jews led to pogroms and ultimately made the Holocaust possible. In 1947, over a million people, were slaughtered when British India was partitioned into India for the Hindus and Pakistan for the Muslims. Nor has interfaith hatred diminished since then. Since 2000, 43 per cent of civil wars have been religious.

Almost 64 per cent of the world's population is Catholic, Protestant, Muslim, or Hindu (for details about religion-wise population and projections, see Pew Research Centre 2015, Hackett et al. 2015). Moreover, faith is extremely tenacious. In 2007, one-third of Chinese people over sixteen said that they were religious. Around 95 per cent of Americans say they believe in God, 90 per cent pray, 82 per cent believe God can perform miracles, and over 70 per cent believe in life after death. It is striking that only 50 per cent believe in hell, which shows a certain lack of consistency. In 1996 a poll of American scientists revealed that only 39 per cent were believers, a

much smaller percentage than the national average. Only 7 per cent of the country's top scientists (defined for this poll as the members of the National Academy of Sciences) professed a belief in God. At the same time, almost no Nobel laureates are religious. A mere 3 per cent of the eminent scientists' members of Britain's Royal Society are religious. Scientists also differ per discipline: Biologists are less prone to believe in God and the hereafter than physicists. So it is not surprising that the vast majority (78%) of eminent evolutionary biologists polled called themselves materialists (meaning that they believe physical matter to be the only reality). Almost three-quarters (72%) of them regarded religion as a social phenomenon that had evolved along with *Homo sapiens*. They saw it as part of evolution rather than conflicting with it.

It does indeed seem that religion must have afforded an evolutionary advantage. Receptiveness to religion is determined by spirituality, which is 50 per cent genetically determined, as twin studies have shown. Spirituality is a characteristic that everyone has, even if they do not belong to a church. Religion is the local shape given to our spiritual feelings. The decision to be religious or not certainly is not "free". The surroundings in which we grow up cause the parental religion to imprint our brain circuits during early development, similar to our native language. Chemical messengers like serotonin affect the extent to which we are spiritual. The number of serotonin receptors in the brain corresponds to scores for spirituality (for details, see Dick Swaab 2015).

The religious programming of a child's brain starts after birth. The British evolutionary biologist Richard Dawkins incensed when reference is made to "Christian, Muslim, or Jewish children", because young children do not have any kind of faith of their own; faith is imprinted in them at a very impressionable stage by their Christian, Muslim, or Jewish parents. Dawkins sees programmed belief as a by-product of evolution (Dawkins 2006). Children accept warnings and instructions issued by their parents and other authorities instantly and without argument, protecting them from danger. As a result, young children are credulous and easy to indoctrinate, and it might explain the universal tendency to retain parental faith. Copying, the foundation of social learning, is a highly efficient mechanism, and we even have a separate system of mirror neurons for it. In this way, religious ideas like the belief that there is life after death, that if you die as a martyr, you go to paradise and are given seventy-two virgins as a reward, that unbelievers should be persecuted, and that nothing is more important than belief in God are also passed on from generation to generation and imprinted in our brain circuitry. We all know from those around us how hard it is to shed ideas that have been instilled in early development.

The evolution of modern man has given rise to five behavioural characteristics common to all cultures: language, toolmaking, music, art, and religion. Precursors of all these characteristics, except for religion, can be found in the animal kingdom. However, the evolutionary advantage of religion to humankind is clear, and it is primarily attributed to the following:

1. First, religion binds groups.
2. Traditionally, the commandments and prohibitions imposed by religions had several advantages.
3. Religious faith is a source of comfort and help at difficult times, whereas atheists have to solve their difficulties without divine aid.
4. God has the answer to everything that we do not know or understand, and belief makes you optimistic.
5. Religion takes away the fear of death- all religions promise life after death. The belief in an afterlife goes back a hundred thousand years.
6. A crucial element of religion has always been that it sanctions killing other groups in the name of one's own god. The evolutionary traits of aggression and tribalism cannot be wiped out by a few generations of centrally heated life, and that explains why xenophobia is still so widespread in our society. The whole world is full of conflicts between groups with different faiths. Since time immemorial, the "peace of God" has been imposed on others by fire and sword, which is unlikely to change soon.

Throughout history, countless people have been imprisoned and killed in the name of Christianity and of other religions. The Old Testament is awash with murders, which can stimulate. Experimental psychological studies show that reading a Bible text in which God sanctions killing raises levels of aggression – though only among believers. Nor is the New Testament all about love and peace. When Pilate washes his hands of the decision to have Christ crucified, Matthew 27:25 states that the people answered, "His blood is on us and on our children" This has been used to justify Christian anti-Semitism and has resulted in the discrimination, persecution, and murder of countless Jews. Moreover, passages like "I did not come to bring peace, but a sword" (Matthew 10.34) do not sound very peace-loving.

Blame certainly should not be confined to a single religion. Almost every religion has fundamentalist, outdated ideas proclaimed as the "truth" imposed on others, sometimes at all costs. Nor is religious extremist aggression confined to a particular faith, as witnessed the 169 deaths caused by the right-wing Christian

extremist Timothy McVeigh (the “Oklahoma City Bomber”) when he blew up the Patriarchs in Hebron by Baruch Goldstein, a Zionist extremist and racist; and the destruction of the Twin Towers on 9/11 in 2001.

As far as Islam is concerned, we can cite Honor crimes, the killing of innocent people by suicide bombers, the hacking off of right hands, and the decapitation of hostages and apostates (people who convert to another religion) as a few examples of violent actions blessed by religion. In Iran in July 2007, a man was stoned to death for adultery, and the local judge was the one who threw the first stone. And then there is violence against women, including female circumcision mutilation that still causes the deaths of large numbers of young girls every year and ruins the lives of countless women. In Sudan, almost 90 per cent of girls under ten are circumcised. The Qur’an does not prescribe female circumcision, and many Christian women in Egypt are also circumcised. However, the practice is confined to the Islamic world and is strongly endorsed by reactionary clerics, who give reasons for their stance. The Egyptian scholar Yousuf Al-Badri believes that female circumcision would solve many problems in the Western world.

Extremist organizations like the Taliban in Afghanistan, Hamas in the Palestinian territories, and Hezbollah in Lebanon rapidly gain popularity and strength. Moreover, once again, this is not specifically a Muslim problem. Under the Bush administration, fundamentalist Christians in the United States frequently stirred up public opinion with their fanatical pro-life campaign, anti-Darwinist ideas, and homophobic, Jewish right-wing extremists have been similarly active in Israel. For the time being, religions worldwide will continue to take their meaningless toll. It is a shame because there is no need to indoctrinate children with religion. Their spirituality can be put to excellent use in science and the environmental sphere or make the lives of the less privileged happier.

A high proportion of patients with psychoses are religious, as their condition often prompts an interest in spirituality. Moreover, many use religion as a way of coping with their disorder. So problems with a religious bearing always need to be looked at in the light of what is considered normal in a particular era or cultural setting. Only in this way can “purely” religious and spiritual problems be distinguished from neurological or psychiatric ones.

Certain neurological and psychiatric disorders can give rise to religious mania, at least if religion has been programmed into the brain during an individual’s youth. After an epileptic seizure, a patient can lose contact with reality, and a quarter of these psychoses take a religious form. Religious delusions can also result from mania, depression, or schizophrenia or constitute the first symptom of front temporal dementia. The murder, in 2003, of the Swedish foreign minister Anna Lindh was, for instance, committed at the “command of Jesus” by

the person living with twenty-five-year-old schizophrenia Mijailo Mijailovic, who had stopped taking his medication.

11. A Recapitulation

Before presenting the core of the proposed Political Economy Theory of Religious Fundamentalism in general, and that related to Islam and Bangladesh in specific, it would be helpful to recapitulate the article's analyses and findings. These are as follows:

First, religious fundamentalism and associated extremism may be seen as *embattled faith; withdrawal from the mainstream; creation of counter-culture; transformation of mythology into ideology; cultivation of theologies of rage, resentment and revenge; the refusal of dialogue necessary for peace and prosperity; defending beleaguered tradition using ritual truth in a globalizing world that asks for reasons*. The Islamist extremists, in their ideology, have successfully assimilated the *mythos* of religion with *logos* of reality. They aim to capture the state power through any means using this ideology.

Second, both external and internal elements of fundamentalism give birth to parochialism against religious liberalism. On the one hand, the crisis of dollar economics, the sharp growth of the petro-dollar in the world economy and its volatility, the Soviet attack on Afghanistan, the barbarian 9/11 and subsequent over-reaction in the name of "War on Terror", the *war against Iraq*, the invasion in Libya and Syria, doubts and mistrust in the people carrying the Muslim identity in the developed world, the unjust globalization, the spread of alien culture through the electronic media, and on the otherhand, rising large scale distress-destitution-deprivation and inequality of our people amidst politico-economic criminalization (which has institutionalized a "culture of plundering"), absence of 'role model' in political leadership, and increasing helplessness and frustration of the ordinary person – all these created a space for and played an immense role in the spread of intolerance and hatred using religions. These were the key opportunities that have created the increasing demand for the exponential growth of religion-based communal politics and associated extremism. Religious extremism is a supply-side response to that demand.

Third, the genesis of Islam reveals the liberal and humanistic origin of Islam in East Bengal. However, this liberal-humanistic Islam has turned into "*Political Islam*" mainly due to three major regressive transformations, associated with the emergence of the "religious doctrine-based Pakistan State" (in 1947), failure to punish the 'war criminals' (in the 1971 War of Independence), and legitimisation of communalism by replacing 'secularism' with "Islam as state religion" in the Constitution (Eighth Amendment 1988).

Fourth, the spirit of the 1971 War of liberation was to develop an exploitation-free equitable economy, institute a secular mindset among people, and establish an enlightened society. However, from the point of view of structural transformation, the balance sheet of the last 40 years (1975-2015) shows that there has not been any meaningful progressive pro-poor change in the society and economy, which complies with the spirit of the 1971 Liberation War. On the contrary, the economy-society-culture-politics has taken the shape of “For the 1%, of the 1%, by the 1%” through the sharp rise of “rent-seekers” on the one hand (who have managed to let government and politics appear subservient to them), and rising inequality and multidimensional poverty among the majority (in a country of 160 million people only one million criminals have trapped 159 million helpless people). The gap between the people’s aspirations and the reality of unmet aspirations has been vast. It is ever-increasing, a particular reality that has created the most fertile ground for the rise and nourishing of religious fundamentalism and extremism.

Fifth, using ‘democratic deficit’ in an equi-strength bipolar democracy (with Bangladesh Awami League and Bangladesh Nationalist Party) coupled with rising inequality and mistrust towards traditional politics – the leading religion-based party, Jamaat-e-Islami Bangladesh (which opposed the 1971 independence, officially) penetrated the mind-set of a sizeable proportion of the population. This party slowly became a factor in electoral politics. The poor and lower and mid-middle class people comprising 83 per cent of the total population of Bangladesh form a solid basis towards religiosity and “intellectual” support group of Jamaat-e-Islam (or, for that matter, any organized Islamic religious-based political party) as well as the rise of religious fundamentalism.

Sixth, the mainstream Islamist party – Jamaat-e-Islami, Bangladesh, through various means, has created an “economy within the economy” (i.e., the economics of fundamentalism), a “government within the government”, and a “state within the state”. Islamist forces have developed an interrelated triangular circuit in which Jamaat-e-Islam acts as the corporate Head Quarters. The other two hands of the triangle are 132 Islamist extremist organizations, the economy of fundamentalism, and 231 non-government organizations with many trusts and foundations. The only aim of this triangle is to “capture state power using religion as a pretext”.

Seventh, “Economic fundamentalism” (i.e., economic and social enterprises own and run by Islamic religious forces) is vital in Bangladesh. The estimated net profit of economic fundamentalism in 2015 would be about USD 2.4 billion. The highest share of that profit, 27.8 per cent, comes from financial institutions,

followed by NGOs trusts and foundations (19.4%), trading (10.6%), health-related enterprises (10%), educational institutions (9.4%), real estate business (8%), media and IT business (7.4%), transport business (7.4%). The relative size of this economy of fundamentalism may not be very high (equivalent to 8.63% of the government's annual development budget) compared to the overall economy. However, danger lies in the following: as against the average of 5-7 per cent growth rate of the national economy, their economy grows at the rate of 9.1 per cent; their economy's total cumulative net profit during the last 40 years (1975-2015) would be about USD 25 billion. In the last ten years, between 2005 and 2015, the annual average growth rate in population was 1.175 per cent, the enrolment of students at the religious schools (Aliya and Quomi Madrassas) was 1.32 per cent compared to 1.18 per cent in the mainstream schools (Primary plus Secondary schools and Colleges). However, for Quomi madrassas- the places of intellectual breeding grounds for religious extremism- the annual increase in students exceeded all, reaching 1.79 per cent. The Quomi students constitute 15.7 per cent of all students and 55.9 per cent of all madrassa students in Bangladesh (and the trend shows upward movement). All these are happening in a context when inequality is rising: during the last ten years (between 2005 and 2015), the Gini coefficient reached 0.482 in 2016 (from 0.467 in 2005), and the Palma ratio reached 2.92 in 2016 (from 2.62 in 2005). The 'economy of fundamentalism' run by religious politically ideology politics Scrutiny of our estimations presented in Table 2 would be adequate to conclude 'dangerous time ahead' attributed to the economy of Islamist Fundamentalism in support 500,000 full-time cadres in politics using 10 per cent of the net profit; they use their economic and political power for placing their own people in strategic positions; they can manage to get on average 15,000 votes in a parliamentary constituency (an average of 75,000 votes needed to win a seat); they provide funding support to conduct day-to-day political activity; they funded huge threat-gathering in Dhaka city on 5 May 2013 by the Hefazat-e-Islam; they give fund for running arms training centres; they provide funding support to many of the 132 Islamist extremist organizations.

Eighth, there are at least 132 Islamist militant organizations in Bangladesh. Some of them operate at local, sub-district and district levels, some at divisional level, some at the national level, and a few beyond the boundary of Bangladesh. These 'Jihadi' organizations have passed through four phases, the 4th phase-2013 and onward may be denoted as "Militancy in Active Form". In other words, the current phase of 'Jihad' of Islamist extremists in Bangladesh falls between '*Ribat*' (meaning small scale clashes) and '*Kilal*' (meaning frontal war); and other things remaining the same, it falls closer to '*Kilal*' than to '*Ribat*'. Two of the already-

banned outfits, the *Jagrata Muslim Janata* (JMB) and the Ansarullah Bangla Team (ABT), are the two most dangerous ones having connections with al-Qaeda and IS and trying to form a single platform of all Islamist extremist outfits in Bangladesh. Their plan to establish Islami Shariah based State Bangladesh, Khelafat, by 2024 coincides precisely with al-Qaeda's master plan of establishing Khelafat in Muslim dominated countries by 2024.

Ninth, it is not possible to extirpate the Islamist-extremism immediately because, within a few days' time-period, it is not possible to break the economic and social foundations (both local and international) on which it is grounded. The accelerated implementation of a "damage minimizing strategy" and a "risk reduction strategy simultaneously" is possible now. As a short term solution, the "damage minimization strategy" may be to pursue a set of doable at a time: (1) To arrange a third-party audit to uncover the Jamaat-extremist connection with the economy of fundamentalism, i.e., to uncover the pathways and nature of financial transactions of the fundamentalists. The outcomes may include nationalisation, confiscation, legal transfer, changing management, changing Board etc.; (2) By speedy trial to execute the punishment of those who made crime against humanity and war-crime in 1971, and are also the god-father of Islamist extremism; (3) To publish-circulate in the mass media whatever is known to the government about the source of funding and arms and explosives of the extremists; (4) To stop the channel of money and arms of the extremists; (5) To confiscate the wealth of extremists; and use the same for the 1971 martyrs, crippled, leading insolvent life, and for those who died due to fundamentalism – extremism; (6) To arrest and give exemplary punishment to them all who are directly-indirectly related with extremist activities; (7) To identify those who, within the government, are the promoters of religious extremism; (8) To strengthen the movement to ban religion-based communal politics; (9) To launch profound awareness raising efforts for the mass people to unveil the real face-aims-objectives of the extremists so that people consciously and spontaneously participate in this process. There may be only one long-term solution - that is, intending to establish a secular mindset, it needs to implement the political promises, including the removal of all sources of economic, social and political inequality.

Tenth, Religious extremism is locally manifested, whereas it holds the status of a global issue. Moreover, global partners must be proactively engaged in countering religious extremism, in which "Risk Reduction Strategy" and "Damage Minimizing Strategy" should be prioritised. Keeping this in view, the rich country governments, in countering religious extremism, may consider the following: They need to (1) Review the weaknesses of the policies on "War on

Terror”; (2) Re-find out and address the root causes of global terrorism including religious extremism; (3) Think more about the complex social-economic-cultural-diplomatic solution rather than the military solution of countering religious extremism; and (4) Take proactive initiative towards activating regional forums in countering religious extremism.

Eleventh, the contemporary world (especially after the fall of socialism in the Soviet Union) is essentially a unipolar one guided by the U.S. dominated Unitarian system of imperialist order, which subordinates all internal factors (and causes). It leads to a sort of global structure where external and internal causal forces form a single cause-form with two apparent differences; internal forces are subjugated to the prime external force — the U.S. imperial ambition aiming at establishing absolute ownership and control over global vital strategic resources, namely land, water, energy-fuel-minerals, and space. The emerging China-factor will change soon, many facets including worsening the situation of religion-based extremism.

The potential catastrophe emanating from the economics of fundamentalism and politics of religious extremism can be overcome only through enlightened political and civic movements guided by courageous leadership coupled with substantive public actions. Such actions should give an institutional shape to democratic values, an enlightened and secular mindset, and equity in distributing public resources and development benefits.

12. Political Economy of Religious Fundamentalism: Core of the Theory

In the emergence and development of religious fundamentalism and fundamentalist militancy, the internal causes and factors are essential. However, these are not the main reason — rather the “appearance of the cause” (in the language of philosophy — “appearances of things”). The external causes, that is, in a unipolar world, the main reason is the originator of the imperialist system-US imperialism’s monopoly on the global fundamental-strategic resources (land, water, energy-power-mineral-sky-space); Therefore, the multidimensional aspects of the causes and consequences of the emergence and development of fundamentalism and fundamentalist militancy have been explained and analysed in this article.

In developing the Political Economic Theory of Religious Fundamentalism, it is necessary to keep in mind that there are many ‘unknown unknowns’ in life, particularly in social phenomena and social-humanitarian sciences. The core of the Political Economy Theory of Religious Fundamentalism (and associated extremism and militancy) would be as follows:

Today's world (especially after the formal collapse of the socialist socio-economic system in the Soviet Union) is essentially a unipolar world, which is governed/guided/ruled by a Unitarian system of imperialism; the lord of that imperialism is the US imperialism which has subjugated all kinds of internal fundamentals factors-reasons in all countries. These mergers have now created a system at the global level where it is not logical to make such a distinction between external and internal; these are just two internal forms of the same global structure, where the seemingly internal form is, in fact, the subjugated form of the external force. Moreover, the main force, in this case, is the external power: US imperialism, whose main imperialist goal is to establish absolute ownership and monopoly control over the four essential and strategic resources of the world: (1) land, (2) water, (3) energy-power-mineral resources, and (4) the space. To sustain and develop this process of the unitarian system of global imperialism — the epicentre imperialism will follow all possible ways-methods whatever it can take - be it "religion", be it "activities intended for change of state structure and power", be it "change of international law", maybe "UN reform", "regional alliances formed or disbanded", maybe "more dominance in the media", maybe somewhere "creating a state of war" or directly "fighting", maybe the practice of more than one of these activities simultaneously.

This theory may seem that internal elements play a secondary role in developing religion-based fundamentalism and related militancy. It may not be. For example, to keep the Saudi monarchy alive, the Saudi state power may indulge not only religion, if necessary, may or may not patronize-indulge religious militancy; but to establish their monopoly power and control over the four primary global strategic resources if the imperialist superpowers think that the fall of monarchy has become a necessity what will happen then? Maybe both sides will use the same religion in different ways, or the two sides will use the two religions differently, or there will be a big war or overthrowing the government through a coup will establish a 'good apple' and so on. The same is true of many other countries (of which there is ample evidence in history) when the state power, even ostensibly speaking of 'democracy' and 'secularism', use 'religion' to stay in power; All these we now see with open eyes when the religious sentiments of people irrespective of religion are being used arbitrarily (which has happened in the past, will happen in the future). From what I have said so far, there will be no deviation from my main point: that is, the root cause is exploitation, the system of exploitation between man and man, the system of which, to survive, must establish single absolute ownership and monopoly authority over the four primary strategic resources of the world. I am well aware that most of those who talk about

the origin and development of religion-based fundamentalism and fundamentalist militancy, who practice knowledge, do not agree with what I have said so far. Because most people think that the issue is purely internal or think external issues are unnecessary. These “proponents in favour of smearing” are incapable of grasping the significance of the political economy of fundamentalism.

Finally, considering the changing nature of society and knowledge dynamics, it is imperative to conduct in-depth multidisciplinary research in social sciences, including economics, to discover the General Theory of Political Economy of Religious Fundamentalism. It is most likely that such a theory proposed in this article would add significant value to the whole endeavour. However, at this embryonic stage of the development of the Political Economy Theory of Religious Fundamentalism, it may be helpful to keep in mind Philosopher Arthur Schopenhauer’s thoughts about seeking and establishing truth: “All truths passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident.”

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Job Satisfaction: A Comparative Study between Public and Private Commercial Banks in Bangladesh

Shohel Rana*

Abstract

The vivacity of job satisfaction and its linkage effect were the stimulus to initiate this study, in which the ultimate end was to assess and compare job satisfaction between public and private commercial banks in Bangladesh. A sample size of 300 employees from public and private commercial banks was selected to infer the population. A five-point Likert type scale structured questionnaire was developed through a pilot test to satisfy the objective with a quantitative approach. Exploratory factor analysis evinces that among 24 variables, seven factors can explain 72.5% variance in job satisfaction of this sector. The independent factors were found to be positively correlated with job satisfaction. Overall satisfaction level does not vary to a noticeable extend between public and private commercial banks but varies from factor to factor. Employees of public commercial banks are satisfied with job security and compensation but dissatisfied with the working condition, whereas private commercial banks stand precisely opposite to these factors in terms of satisfaction and dissatisfaction. Both public and private commercial banks' employees were satisfied with supervision, intrinsic feeling and work itself. Women were found to be more satisfied than male employees. The result of regression analysis evinces that Working conditions; Supervision, and Growth opportunity are the best predictors of job satisfaction of commercial banks in Bangladesh. Finally, this paper recommended that proper working conditions, adequate staffing, good behaviour from the boss, performance-based reward,

* Associate Professor, Department of Finance and Banking, Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh, Bangladesh. E-mail: s.rana_fb@yahoo.com

reasonable work demand, crystal and equitable promotion and perception of security within private commercial banks can improve the employees' satisfaction level of commercial banks in Bangladesh.

JEL Classification J28 · J62 · G21

Keywords Job Satisfaction · Private & Public Commercial Banks · Comparison & Job Security

1. Introduction

Some vital sectors directly lead to sustainable economic growth in every country. The banking sector is one of the most significant among them (Hussain, 2015). The banking sector dominates the financial sector of Bangladesh. This dominance is vulnerable on the one hand, but it is very crucial for resource mobilisation and economic growth on the other hand (Khatun, 2016). There are 57 scheduled banks in Bangladesh, out of which six state-owned commercial banks, two specialised banks, 32 conventional and eight non-conventional private commercial banks and nine foreign commercial banks are operating (Bangladesh Bank, 2017). Without an efficient and motivated workforce, this sector will not run properly. Like any other business, the success factor is human capital. The performance of the employees has a direct relationship to customer satisfaction (Dunlop, Parasuraman, 1988). Employees' performance can also affect business performance (Suter, 1995). Committed and satisfied human resources are vital assets for any organisation. The dissatisfaction of employees reduces business performance. Job satisfaction is the feeling and perception of an employee about his/her job and how he/she feels himself/herself well in the organisation (Ivancevich, Olelans, & Matterson, 1997). Job satisfaction of employees is considered one of the vital factors for organisational success, and that is why job satisfaction has received remarkable attention in organisational research (Rana, 2015). There is a positive and significant relationship between HRM practices and job satisfaction, whereas it is also noted that job satisfaction level also varies among male and female (Rana, 2015).

As most people spend a major portion of their lives at the workplace, it is imperative to have job satisfaction (Aarti, Seema, Bhawna & Jyoti, 2013). People do not work for economic factors only, and job satisfaction is also essential to serving for a longer tenure (Rahman, Gupta & Huq, 2012). Several factors motivate people to work in an organisation, like recruitment and selection, training and development, salary, benefits and rewards (Ahmed, 2015). Ahmed (2015) also revealed that supervisory role and job security have an adverse effect on job satisfaction, whereas (Anjom, Akther, & Karim, 2016) identified several

other factors contributing to employees' job satisfaction like attractive compensation package, smooth career growth, dignity, pension funds, job security, provident fund, gratuity (Uddin, Kabir, Rahman, & Akhter, 2017) identified three positive factors and two negative factors that can affect job satisfaction. Pay and promotional potential, the well-organised chain of command and general working conditions have a positive relationship with job satisfaction, whereas poor team spirit and poor job security can negatively affect the job satisfaction level of employees. This study aims to identify the current scenario of job satisfaction among employees of public and private commercial banks and compare them. This study also tried to establish relationships of different variables to job satisfaction and identify the key variables contributing to job satisfaction.

2 Objectives of the study

The main objective of this research is to measure the level of job satisfaction of employees in state-owned and private commercial banks in Bangladesh. The specific objectives are;

- i) To find out the key factors affecting the job satisfaction level of public and private commercial banks in Bangladesh.
- ii) To identify the level of job satisfaction of employees in public and private commercial banks in Bangladesh.
- iii) To compare job satisfaction between public and private commercial banks in Bangladesh.
- iv) To measure the degree of relationship between job satisfaction and contributing variables.

3 Literature Review

3.1 Emergence and concept of job satisfaction

The concept of "job satisfaction" has not been developed overnight. The concept can be traced from 1911 when F.W Taylor strived to bring science to the workplace to make work simpler, easier, and quicker and introduce a piece rate system beside linking employees' affluence with the organisation's prosperity by enhancing employee productivity. (Ghafoor, 2012). Since scientific management treated workers as a machine, employees became highly dissatisfied. After that, finding the reasons and ways of satisfying employees was always an epicentre to the researchers. After that, the term job satisfaction came to light very vividly with the emergence of the human relation approach. Elton mayo (1924) conducted the

experiments basically to understand the effect of working conditions on productivity, but the investigation went in a new direction, emphasising employees' attitudes. The conclusion was drawn that people get satisfaction not only from money but also from psychological, social wants, feelings and desires, and this finding was influential enough to stimulate researchers to find actors of job satisfaction. Uhrbrockis the first psychologist who successfully used attitude measurement techniques in 1934 and assessed the attitudes of 4430 employees of a factory. Hoppock (1933) was able to find out 100 satisfied and 100 least satisfied teachers among 500 teachers using a questionnaire which can be traced as the first lucid contribution toward job satisfaction.

Hoppock (1935) defined job satisfaction as any combination of psychological, physiological and environmental circumstances that cause a person truthfully to say I am satisfied with my job. Vroom (1964) defined job satisfaction as "affective orientations on the part of individuals toward work roles which they are presently occupying". Spector (1997) defined Job satisfaction as "the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs". According to Spector (1997), job satisfaction and dissatisfaction have an affinity with the state to which people have positive and negative feelings toward their work, duties, responsibilities and condition of the workplace. (p. 2). On the other hand, (Davis and Nestrom, 1985) said, "Job satisfaction represents the extent to which expectations match the real awards" Locke (1976) gives a comprehensive definition of job satisfaction as "a pleasurable or positive emotional estate resulting from the appraisal of one's job experience.

3.2 Prominent work on job satisfaction in the banking industry

Islam & Islam (2014) revealed that the performance of private and foreign banks is more robust than that of public sectors. However, given (D'Souza, 2002), public sector banks have a structured compensation plan with lower pay differentials among employees, long-term tenure with high base pay, whereas private sector banks have the more significant pay differentials, pay for performance and fewer rewards for tenure. Moreover, (Jha, Gupta, &Yadav, 2008) opined that private sector banks do not provide job security what a public sector bank does, and they usually lay off their employees in case of adverse market conditions or poor performance. A study (Hossain, 2014) was conducted to reveal the job satisfaction level of bank employees in Bangladesh. With the help of a structured questionnaire, the study found that factors such as work conditions, pay, fairness and promotion influence the job satisfaction of Bank employees. Besides, it evinced that age, gender, and other demographics, which are essentially individual factors, did not dramatically influence job satisfaction in banks. Aktar,

Sachu & Ali (2012) conducted empirical research to examine how rewards lead to better performance, leading to better customer and employee's satisfaction.

With the hypothesis that there is a relationship between turnover and employee satisfaction, a study was conducted to determine the factors determining employees' job satisfaction and to show how job satisfaction and employees' turnover are related. Besides, Newaz, Ali, & Akhter (2007) stated that a healthy banking system requires a focus on the factors primarily responsible for employee turnover. On the other hand, (Rahman & Iqbal, 2013) realised that employee turnover is very costly for an organisation. Moreover, Hossain (2012) tried to explore employees' job satisfaction of private banks of Bangladesh by examining Human Resource Management practice and its impact on employee satisfaction. While, Hunjra, Chani, Aslam, Azam, & Rehman (2010) considered the impact of HR practices like job autonomy, teamwork, environment, and leadership on job satisfaction.

Moreover, assess the job satisfaction level of bank officers in Bangladesh. The study focused on the individual factors of job satisfaction and found that Private bank officers have higher satisfaction than those from public sectors. However, Khuong & Tien (2013) found a relationship between job satisfaction and employees' commitment, desire to work, stay long and prolong the service to the organisation. Sowmya & Panchanatham (2009) explored a factor analysis deploying the principle component method and found pay and promotion, organisational factors, supervisor's behaviour, job and working condition and behaviour of co-workers are the factors influencing job satisfaction of employees.

4 Rationality and stipulation

The nature of job satisfaction is an ever-changing process. As the present era is being dominated by new technology, expanding trade & commerce, intense dependency of people on banks, dynamic economy, ever-changing government policy, the factors influencing job satisfaction of the banking industry may change dramatically. Therefore, the time and well-being of the banking industry demand to assess the level of job satisfaction in public and private commercial banks and compare the result to get depth knowledge.

5 Methodology

It is quantitative research. Primary data was the epicentre of analysis. A stratified random sampling technique was adopted to collect the primary data from the Greater Mymensingh Region. A sample of 300 employees was interviewed randomly, among which 150 were from the public and resting 150 were from private commercial banks. The literature review was the largest source of

secondary data. The principle of summation score was followed to assess overall job satisfaction, and each independent variable was measured through 5 points Likert type scale. Primary data were analysed with the help of SPSS. To identify the factors influencing job satisfaction, the factor analysis-principal component method was applied. The descriptive statistics were completed by calculating each factor's mean value and standard deviation from factor analysis. The factors were ranked based on the maximum mean value. The open-ended question was analysed to reveal factors that were not covered with the questionnaire. Finally, correlation and multiple regression models were applied to know the relationship between job satisfaction and contributing factors.

6. Limitation of the study

Data could not be possible to collect from every branch and every bank. Time was enough but not good enough regarding this study. The study could not include experience, income level and age. Lastly, job security was excluded from factor analysis due to low communality, and it was not considered in correlation and multiple regressions.

7. Analysis of the findings

7.1 Factor analysis to find out factors influencing job satisfaction of commercial banks.

The researcher of this paper conducted factor analysis (principal component) to validate the self-constructed survey instrument, reduce the original variables, and explore latent factors. The researcher has found (See Appendix B) no variables with a correlation coefficient more than 0.9 ($R > 0.9$) and determinant value $2.502E-5$, (0.002502) which is noticeably more significant than the required value 0.00001. So factor analysis is viable.

7.1.2 Factorability Tests

The table above shows KMO and Bartlett's test of sphericity. For these data, the

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.715
Bartlett's Test of Sphericity	Approx. Chi-Square	3078.135
	Df	253
	Sig.	.000

Source: Factor analysis (Appendix B)

approximate Chi-square in Bartlett's test is 3078.135 with 253 degrees of freedom, which is significant at a 95% confidence level. Bartlett's test ($p < 0.001$) evinces that the observed correlation matrix is not singular and, therefore, a linear combination is present in the data set.

As the principal component method takes initial communalities as unity, the initial communalities for all variables are 1. A value closer to 1 is preferable, but a value more than 0.5 is acceptable. In the data set, no variable is seen with a communality value less than 0.5. More than 80% of the variance in "Basic Salary, Bonus &

Table 2: Communalities

	Initial	Extraction
Basic Salary	1.000	.831
Clear Direction & Feedback	1.000	.689
Bonus & Incentives	1.000	.817
Equitable Remuneration for work	1.000	.802
Competent Manager	1.000	.668
Helps from superior in personal issues	1.000	.710
Participation in Decision Making	1.000	.669
Due Time Promotion	1.000	.790
Digital Tools & Equipment	1.000	.833
Stress and Workload	1.000	.571
Logistic Support	1.000	.817
Open communication system	1.000	.727
Cooperation among the employees	1.000	.669
Level of staffing	1.000	.627
Perceived equity in promotion	1.000	.693
Position as per Qualification	1.000	.758
Help each other to solve a Problem	1.000	.722
Recognition for Good work	1.000	.597
Task Variety	1.000	.753
Meaningful contribution	1.000	.837
Sense of Achievement	1.000	.805
Challenging Responsibility	1.000	.672
Ability Utilization	1.000	.636

Extraction Method: Principal Component Analysis.

Incentives, Equitable Remuneration for work, Digital Tools & Equipment, Logistic Support, Meaningful contribution, and Sense of Achievement" is accounted for. 59.7% variance, the lowest in the table in "Recognition for Good work", is accounted for. The variance for other variables is more than 60% to 70%. Note that the variable 'job security has been excluded from the factor analysis because of low communalities (.498<.5) (see appendix B).

7.1.3 Factor extraction & total variance explanation

The table above shows the eigenvalues related to each linear factor before & after extraction and after rotation. As this data set has 23 variables, the table has shown 23 linear components within the data set because eigenvectors must be equal to variables. In this case, the first component explains 15.49% variance, component

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	%of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	3.563	15.491	15.491	3.563	15.491	15.491	2.915	12.674
2	3.093	13.448	28.939	3.093	13.448	28.939	2.764	12.016	24.690
3	2.627	11.421	40.360	2.627	11.421	40.360	2.490	10.828	35.517
4	2.231	9.700	50.059	2.231	9.700	50.059	2.232	9.705	45.222
5	1.882	8.184	58.243	1.882	8.184	58.243	2.222	9.663	54.885
6	1.790	7.782	66.025	1.790	7.782	66.025	2.059	8.953	63.838
7	1.508	6.557	72.582	1.508	6.557	72.582	2.011	8.744	72.582
8	.751	3.266	75.848						
9	.606	2.636	78.484						

Extraction Method: Principal Component Analysis.

2 explains 13.44% variance, and component 3 explains 11.42% variance of the data set. 7 components together explain 72.58% variance. However, the first three components alone can explain a more significant proportion of this total variance which is 40.36%.

7.1.4 Scree plot

The graph above has presented the slope between the five eigenvalues and 23 factors. From the plot, it is clear that seven factors have an eigen value greater than 1. From the factor 8 to 23, it seems to be a flat line. So except for the first seven factors, the rest factors account for smaller and smaller amounts of the total variance.

7.1.5 Component & Rotated component Matrix

The table component matrix (see Appendix B) shows before and after rotation. Before rotation, it is tough to name and interpret the component based on factor loadings. The problem's solution is the rotated component matrix (as shown below), where factor rotation alters the pattern of the factor loadings and makes the component matrix simple, easy and interpretable. The researcher has used the orthogonal-varimax technique, assuming no relationship among the extracted

Table 4: Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
Digital Tools & Equipment	.890						
Logistic Support	.882						
Level of staffing	.755						
Stress and Workload	.748						
Helps from superior in personal issues		.827					
Clear Direction & Feedback		.802					
Competent Manager		.773					
Participation in Decision Making		.722					
Basic Salary			.902				
Bonus & Incentives			.897				
Equitable remuneration for work			.881				
Due Time Promotion				.880			
Position as per Qualification				.846			
Perceived equity in promotion				.811			
Help each other to solve a Problem					.842		
Open communication system					.835		
Cooperation among the employees					.795		
Task Variety						.860	
Challenging Responsibility						.802	
Ability Utilisation						.776	
Meaningful contribution							.904
Sense of Achievement							.882
Recognition for Good work		.465					.581

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

variables and ignoring the value of the loading less than 0.4 in the rotated table using the suppressed option.

7.1.6 Naming the components

From the Rotated Component Matrix, the following factors can be found. Working Condition, Supervision (Technical & personal, Salary & Fringe, Growth opportunity & advancement, Cooperative Employees, Work-itself and component 7 can be called "Intrinsic Feelings" which explains 8.74% variance in job satisfaction.

8. Comparison Tables of job satisfaction between public and private commercial banks are presented below

The following table has presented the calculated mean of all factors of descriptive statistics for both public and private commercial banks. As we saw before satisfaction level of public commercial banks' employees is good but not enough, with an average of 3.421 and a standard deviation of .302. This table also shows the mean value of private commercial banks, which is 3.

It is transparent from the following graph that the maximum value for the public, commercial banks is greater than that of private commercial banks. The maximum value for the public, commercial banks is 4.17, which is 0.09 points greater than the value of private, 4.08 and the minimum value of public, commercial banks are 2.17 when the minimum value for private is 2.46. Employees of both institutions have the almost same level of satisfaction with the job, but public commercial banks' employees are comparatively more satisfied with the job by a mean of 0.015 (3.4211-3.4058), which is not a significant difference. So it can be inferred that public and private commercial banks employees are satisfied with their job but not to a great extent.

In this section, the researcher will consider all components from factor analysis and variable which was excluded from factor analysis for low communality to find the factors with which employees are satisfied, dissatisfied and in the position of indecision at a glance. Moreover, the responses to the open-ended question will be considered here.

9. Comparison of overall job satisfaction between public and private commercial Banks

The following table has presented the calculated mean of all factors of descriptive statistics for both public and private commercial banks. As we saw before satisfaction level of public commercial banks' employees is good but not enough,

Table 5: Comparative result of satisfaction with "Salary & Fringe Benefits"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Basic Salary	3.60	1.036	2.96	1.029
Bonus & Incentives	3.62	1.034	2.97	.948
Equitable Remuneration for work	3.64	1.032	3.15	.979
		3.6200		.93089
			3.0267	.87344

Table 6: Comparative result of satisfaction with "Supervision (Technical & Personal)"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Clear Direction & Feedback	3.71	.661	3.59	.942
Competent Manager	3.63	1.167	3.35	1.024
Helps from superior in personal issues	3.51	.910	3.53	.872
Participation in Decision Making	3.49	1.028	3.5850	.74401
			3.61	.866
			3.5200	.75169

Table 7: Comparative result of satisfaction with "Working Environment"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Digital Tools & Equipment	2.34	.995	3.75	.723
Stress and Workload	2.39	.926	3.11	.945
Logistic Support	2.23	.972	3.89	.853
Level of staffing	2.09	.958	2.96	1.080
		2.2650		.83104
			3.4300	.60971

Table 8: Comparative result of satisfaction with Growth opportunity & advancement

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Due Time Promotion	2.71	1.348	2.80	1.135
Perceived Equity in promotion	3.12	1.023	3.39	.897
Position as per Qualification	3.07	1.379	2.85	1.052
		2.9667		1.09282
			3.0156	.86384

Table 9: Comparative result of satisfaction with "Cooperative Employees"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Open communication system	3.77	.752	3.51	.995
Cooperation among the employees	3.80	.676	3.55	.909
Help each other to solve a Problem	3.79	.816	3.80	.803
			3.6200	.76367

Table 10: Comparative result of satisfaction with "Intrinsic Feelings"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Recognition for Good work	3.68	.972	3.29	.952
Meaningful contribution	3.95	.617	3.83	.680
Sense of Achievement	3.98	.618	3.84	.828
			3.6556	.66152

Table 11: Comparative result of satisfaction with "The job itself"

Items	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Task Variety/ Rotation	3.92	.690	3.72	.868
Challenging Responsibility	3.99	.786	3.96	.722
Ability Utilization	3.78	.732	3.74	.855
			3.8067	.66248

Table 12: Comparative result of satisfaction with "Job Security"

Item	Public Commercial Banks		Private Commercial Banks	
	Mean	SD	Mean	SD
Job Security	4.29	0.727	2.57	1.006

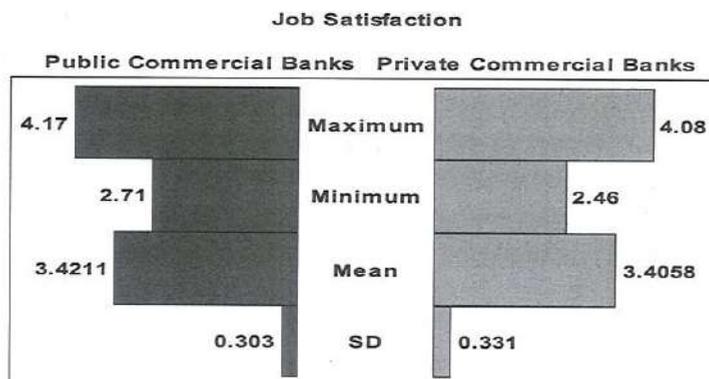
with an average of 3.421 and a standard deviation of .302. This table also shows the mean value of private commercial banks, which is 3.

It is transparent from the following graph that the maximum value for the public, commercial banks is greater than that of private commercial banks. The maximum value for the public, commercial banks is 4.17, which is 0.09 points greater than the value of private, 4.08 and the minimum value of public, commercial banks are 2.71 when the minimum value for private is 2.46. Employees of both institutions have the almost same level of satisfaction with the job, but public commercial banks' employees are comparatively more satisfied with the job by a mean of 0.015 (3.4211-3.4058), which is not a significant difference. So it can be inferred that public and private commercial banks employees are satisfied with their job but not to a great extent.

10. Satisfier, Non-satisfier and neutral factors of public & private commercial banks

In this section, the researcher will consider all components from factor analysis and variable which was excluded from factor analysis for low communality to

Figure 2: Comparative result of overall satisfaction level



find the factors with which employees are satisfied, dissatisfied and in the position of indecision at a glance. Moreover, the responses to the open-ended question will be considered here.

An open ended question (What can make you happier with your job?) was used in the questionnaire to solicit any other information related to job satisfaction. The

Table 13: Comparative result of overall satisfaction level of public & private banks

Type of Bank	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Public commercial Bank		2.71	4.17	513.17	3.4211	.30286
Job satisfaction						
Valid N (listwise)	150					
private commercial Bank		2.46	4.08	510.88	3.4058	.33128
Job satisfaction						
Valid N	150					

Table 14: Relative contribution of different factors to job satisfaction

Public Commercial Banks		Private Commercial Banks			
Variables	Mean	Rank	Variables	Mean	Rank
Job Security	4.29	1	The Work Itself	3.80	1
The Work Itself	3.90	2	Intrinsic Feelings	3.65	2
Intrinsic Feelings	3.87	3	Cooperative Employees	3.62	3
Cooperative Employees	3.78	4	Supervision(Technical & Personal)	3.51	4
Salary & Fringe Benefits	3.62	5	Working Condition	3.52	5
Supervision(Technical & Personal)	3.58	6	Growth Opportunity	3.43	6
Growth Opportunity	2.96	7	Salary & Fringe Benefits	3.02	7
Working Condition	2.26	8	Job Security	2.57	8

Table 15: Result of open-ended question

Public Commercial Banks		Private Commercial Banks			
Factors	Number	Per cent	Factors	Number	Per cent
Adequate employees	98	65.33	Attainable performance target	55	36.66
Improved work environment	123	82	Reduced working hour	82	54.66
Government provident fund	46	30.66	Good behaviour of the manager	42	28
Due time promotion	105	70	Salary augmentation	125	83
Corruption free promotion	34	22.66			
Salary augmentation	72	48			

Source: Field survey.

Table 16: Correlation between job satisfaction and contributing factors

	1	2	3	4	5	6	7	8
Public C Banks	1							
job satisfaction	.291**	1						
Salary & Fringe Benefits	.000		1					
Supervision & (Technical Personal)	.449**	.004	1					
Working Condition	.000	.960		1				
	.403**	-.053	-.115	1				
Growth Opportunity	.000	.517	.160		1			
	.491**	-.002	-.142	.094	1			
Cooperative Employees	.000	.978	.082	.255		1		
	.437**	.007	.344**	-.091	.041	1		
Intrinsic Feelings	.000	.931	.000	.266	.617		1	
	.408**	-.034	.347**	-.083	.006	.107	1	
The Work Itself	.000	.679	.000	.314	.944	.191		1
	.320**	-.172*	-.044	.118	.125	.181*	.006	1
	.000	.036	.589	.151	.129	.026	.945	

Correlation is significant at the 0.01 level (2-tailed) **

Correlation is significant at the : 05 level (2-tailed)*

11. Test of hypothesis regarding the association between job satisfactions and contributing factors of Public Commercial Banks

- i) Null Hypothesis H₀: There is no statistically significant linear correlation between jobsatisfaction and contributing factors of public commercial banks.
- ii) Alternative Hypothesis H₁: There is a statistically significant linear correlation between jobsatisfaction andpublic commercial banks' contributing factors.

From the table below, we can observe the correlation between jobsatisfaction and contributing factors of public commercial banks. Table 16 presents that all contributing factors have a positive relationship with the job satisfaction with working conditions (.403), supervision - technical and personal (.449), salary and fringe benefits (.291), growth opportunity (.491), cooperative employees(.437), work-itself(.320), intrinsic feeling(.408).

The second line, which has been marked differently, presents the p-value. By observing the second line, it is clear that all contributing factors are statistically significant at 99% & 95% level of confidence (indicated by star mark) with value working condition(.001) supervision- technical & personal, (.001) salary & fringe benefits (.001), growth opportunity & advancement (.001), Cooperative employees (.001), work-itself (.001) and Intrinsic Feelings.

12 Test of hypothesis regarding the association between job satisfactions and contributing factors of private commercial Banks

- i) Null Hypothesis H₀: There is no statistically significant linear correlation between job satisfaction and private commercial banks' contributing factors.
- ii) Alternative Hypothesis H₁: There is a statistically significant correlation between jobsatisfaction and private commercial banks' contributing factors.

Table 17 presents that all contributing factors have a positive relationship with the job satisfaction with working conditions (.497), supervision- Technical & personal (.562), salary & fringe benefits (.400), growth opportunity(.557), cooperative employees(.367), work-itself(.362), intrinsic feeling(.451).

By observing the second line, it is clear that all contributing factors are statistically significant at 99% & 95% level of confidence (indicated by star mark) with value working condition (.001) supervision Technical & personal, (.001) salary & fringe benefits (.001), Growth opportunity & advancement (.001), Cooperative employees (.001), work-itself (.001) and Intrinsic Feelings (.001).

Table 17: Correlation between job satisfaction and contributing factors of private commercial banks

	1	2	3	4	5	6	7	8
Private C Banks	1							
job satisfaction								
Salary & Fringe Benefits	.400**	1						
	.000							
Supervision(Technical & Personal)	.562**	-.060	1					
	.000	.462						
Working Condition	.497**	.036	.167*	1				
	.000	.661	.041					
Growth Opportunity	.557**	.122	.068	.299**	1			
	.000	.137	.405	.000				
Cooperative Employees	.367**	.002	.003	.037	.188*	1		
	.000	.982	.975	.650	.021			
Intrinsic Feelings	.451**	.059	.372**	.058	.022	.009	1	
	.000	.476	.000	.483	.785	.910		
The Work Itself	.362**	.086	.170*	.008	.042	.019	.022	1
	.000	.294	.038	.924	.612	.818	.787	

Correlation is significant at the 0.01 level (2-tailed)**

Correlation is significant at the 0.05 level (2-tailed)*

From the table, it is clear that all contributing factors are related to job satisfaction at a 0.05 level of significance.

Result: After observing the tables, the researcher can reject the null hypothesis and conclude that there is a significant and positive correlation between job-satisfaction and contributing factors of public and private commercial banks.

13. Multiple regressions analysis

The researcher has utilised multiple regression models to estimate the relationship between job satisfactions (dependent variable) and contributing factors (independent variables). The main intention here would be to see how one unit change in independent variable impacts job satisfaction and find the magnitude of each independent factor that is the most influential factor of job satisfaction.

Model Fit: In ANOVA tables, the P-value is less than 0.05, so there is a statistically significant relationship between the job satisfaction & contributing variables at the 95.0% confidence level. The total degree of freedom (N-1) for both models is 149, and with seven predictors, the regression effect has 7 degrees of freedom. The prediction model for public commercial banks, $F(7, 142) = 1004.490$, $p < .001$, is statistically significant. Besides, the prediction model for private commercial banks, $F(7, 142) = 717.303$, $p < .001$, is statistically significant.

The following table, as labelled model summary, is the overview of the whole regression analysis. From the R column, it is clear that there is a very high correlation among the constant and contributing factor of both models. The R square for public commercial banks is .980, and the Adjusted R is .979. So, from R square & adjusted R square of model 1, contributing factors explain around 98% variance in job satisfaction for public commercial banks and model 2 explains around 97% variance in job satisfaction for private commercial banks.

The coefficient table of both models 1 & 2 shows the result of regression analysis in detail. The following regression equations of the fitted models for public and private commercial banks have been drawn from the table.

Public Commercial Banks: Job-Satisfaction (Y1) = 3.448 + 0.137*(Working condition) + 0.150* (Supervision ((Technical & Personal) + 0.101* (Salary & Fringe Benefits) + 0.144* (Growth Opportunity) + 0.096*(Cooperative employees + 0.091* Work itself + 0.100*(Intrinsic Feelings) + ei

Private Commercial Banks: Job-Satisfaction (Y2) = 3.395 + 0.117*(Working condition) + 0.147 * (Supervision ((Technical & Personal) + 0.110* (Salary & Fringe Benefits) + 0.143* (Growth Opportunity) + 0.110*(Cooperative employees + 0.095* Work itself + 0.094*(Intrinsic Feelings). + ei

Table 18: ANOVA

Type of Bank	Model		Sum of Squares	Df	Mean Square	F	Sig.
Public commercial Bank	1	Regression	13.397	7	1.914	1004.490	.000 ^b
		Residual	.271	142	.002		
		Total	13.667	149			
Private commercial Bank	2	Regression	15.902	7	2.272	717.303	.000 ^c
		Residual	.450	142	.003		
		Total	16.352	149			

a. Dependent Variable: Job Satisfaction

b. Predictors: (Constant), 7 contributing factors.

The primary intention of the researcher is to look into the raw (B) and t-tests that have determined standardised (Beta) coefficients and their significance levels. The constant is the raw score of both models, which is denoted as Y1 & Y2 intercept. Public commercial banks have a value of 3.448, and the intercept of private commercial banks is 3.395. The coefficient table shows that all contributing factors for public & private commercial banks are statistically significant for jobsatisfaction.

The raw regression coefficients (B) values have considered the other predictors in the model and have informed the predicted change in the jobsatisfaction for every unit increase in that contributing factor. For public commercial banks, one unit change in working condition will lead to 0.137 points augmentation in job satisfaction followed by supervision ((Technical & Personal) 0.150 points, salary & fringe benefits 0.101point, growth opportunity 0.144, cooperative employees 0.096, work itself 0.091 point and intrinsic feelings 0.100-point improvement in job-satisfaction respectively. In model 2, For private commercial banks, one unit change in working condition will lead to 0.117 points augmentation in job satisfaction followed by supervision ((Technical & Personal) 0.147 points, salary & fringe benefits 0.110 point, growth opportunity 0.143, cooperative employees 0.110, work itself 0.095 point and intrinsic feelings 0.094-point improvement in job-satisfaction respectively.

The result of standardised regression coefficients based on changes on standard deviation shows how one unit change in standard deviation of a particular independent variable brings a change in the dependent variable. For this data set, in model 1, every standard deviation increase in growth opportunity will increase job satisfaction by 0.527 standard deviation units, followed by supervision 0.485, working condition 0.405, salary & fringe benefits 0.334, intrinsic feeling 0.306, cooperative employees 0.296 and work-itself 0.290 respectively. In model 2, every standard deviation

Type of Bank	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public commercial Bank	1	.990 ^a	.980	.979	.04365
private commercial Bank	2	.986 ^b	.972	.971	.05628

a. Predictors: (Constant), 7 contributing factors.
 b. Predictors: (Constant), 7 contributing factors.

Table 20: Coefficients^a

Type of Bank	Model	Unstandardised Coefficients			Standardised Coefficients		
		B	Std. Error	Beta	T	Sig.	
Public commercial Bank	1 (Constant)	3.448	.005		744.686	.000	
	Working condition	.137	.004	.405	33.204	.000	
	Supervision (Technical & personal)	.150	.004	.485	39.501	.000	
	Salary & Fringe Benefits	.101	.004	.334	27.408	.000	
	Growth opportunity	.144	.003	.527	44.152	.000	
	Cooperative Employees	.096	.004	.296	24.319	.000	
	The Work Itself	.091	.004	.290	23.664	.000	
	Intrinsic Feeling	.100	.004	.306	25.815	.000	
	2 (Constant)	3.395	.007		498.584	.000	
	Working condition	.117	.007	.242	16.177	.000	
private commercial Bank	Supervision (Technical & personal)	.147	.005	.455	31.287	.000	
	Salary & Fringe Benefits	.110	.005	.310	21.345	.000	
	Growth opportunity	.143	.005	.380	26.648	.000	
	Cooperative Employees	.110	.004	.351	24.508	.000	
	The Work Itself	.095	.005	.294	20.746	.000	
	Intrinsic Feeling	.094	.004	.303	21.543	.000	

a. Dependent Variable: Job Satisfaction

increase in growth opportunity will increase job satisfaction by 0.208 standard deviation units, followed by supervision 0.455, working condition 0.242, salary & fringe benefits 0.310, intrinsic feeling 0.303, cooperative employees 0.351 and work-itself 0.294, respectively.

14. Discussion with the analysis

The factor analysis run by the author reveals that working condition alone explains around 13% variance in job satisfaction while working condition & supervision together explain about 25% variance in job satisfaction of commercial bank's employees. The rest factors, such as salary & fringe benefits, cooperative employees and growth opportunity and advancement in combination, explain around 30% variance but intrinsic feeling and work itself have been observed to be less influencing factors of job satisfaction. The result has an affinity with the work of Sowmya & Panchanatham, who found that pay and promotion, organisational factors, supervisor's behaviour, job and working conditions and behaviour of co-workers are essential factors of job satisfaction.

The second part of the descriptive analysis reveals that the employees of public and private commercial banks experience different degrees of satisfaction with different factors. For example, employees of public commercial banks are delighted with their job security, but employees of private commercial banks are not satisfied with job security. On the other hand, employees of public commercial banks are dissatisfied with the working condition- stress level, logistic support, digital tools & equipment and adequate staffing, especially with staffing level. Employees of private commercial banks are satisfied with the working conditions of logistic support and digital tools & equipment but neither satisfied nor dissatisfied with stress & workload, and staffing level. Moreover, employees of public commercial banks have been observed to be happy with the compensation package, but employees of private commercial banks were almost in indecision about the financial benefits. These findings have similarities with the research work of (Shrivastava and Purang,2009 Jhaet., al,2008 and Islam and Islam,2014),who found that public and private commercial banks differ in satisfaction level because of different factors. Employees of both institutions are in indecision with the growth opportunity and advancement. According to the analysis, private commercial banks do not treat employees unequally as employees are in a neutral position about equity in promotion but are not satisfied with their promotion because of excessive time taken to be promoted. On the other hand, employees of public commercial banks are in the position of indecision about the satisfaction level with growth and advancement.

The average score of all items has determined the job satisfaction level of

employees. Job satisfaction of public commercial banks is 3.42, and private commercial banks 3.40. The researcher of this paper has measured job satisfaction with Likert 5 scale measurement where three was regarded as neutral position and 4, 5 was satisfied and highly satisfied respectively. So the result indicates that employees of commercial banks have crossed the line of indecision and are satisfied with their job but not to a remarkable amount as the mean value is far less than 4, which indicates that a considerable portion of employees are not satisfied with their overall job and there is a room for improvement. The more important point is that previous researchers found private commercial banks to be more satisfied than public commercial banks, but this research found something different. Private commercial banks' satisfaction level has fallen compared to public commercial banks but not to an extreme level (3.42-3.40). (Hunjra, Chani, Aslam, Azam, & Rehman, 2010) found in their study that males and females experience a different level of satisfaction with their job. The result of this paper has an affinity with the results of their work. Female employees of public commercial banks are more satisfied with the job (mean 3.54) than male employees, with a mean of 3.38.

Moreover, the researcher of this paper has considered employee satisfaction level with organisational factors and individual-centric factors. It seems internal factors, intrinsic feelings and the work itself, which are also related to self-perception about the job, contribute most to the employee's satisfaction of public (mean value 3.88) and private (mean value 3.73) commercial banks. Open-ended question evinced that revised working hours, average performance target and good behaviour of boss can make employees of private commercial banks more satisfied with their job beside the factors used in this paper. Besides working conditions and growth & advancement, government provident funds can make 31% employees of public commercial banks.

The last but one part of the analysis examined the association and strength of direction between job satisfaction and contributing factors. The Pearson's correlation analysis of this paper evince a positive linear relationship between the job satisfaction and contributing factors of both private and public commercial banks, and the relationship is significant at a 95% confidence level. The result of regression shows that the most important predictors of job satisfaction is supervision (Technical & personal) for both public and private commercial banks followed by growth opportunity and advancement, working condition, salary & fringe benefits and cooperative employees. On the other hand intrinsic feelings and job, itself which are related to inner & personal feelings of employees were found to have relatively less causal power to influence job satisfaction comparing to other factors but these individual-centric factors were found to be statistically

significant. These findings have an affinity with the work of (Hunjra et al.,2010), who found a positive relationship between job satisfaction and human resource management activities, which is nothing but a driver to produce the contributing factors of this paper.

15. Findings

- Seven components among 23 items, including Working Condition, Supervision (Technical & personal, Salary & Fringe Benefits, Growth Opportunity, Cooperative Employees, intrinsic feeling, and work-itself, can explain 72.5% variance of employee satisfaction in commercial banks in Bangladesh.
- Overall satisfaction level does not vary dramatically between public commercial banks (Mean 3.4211, standard deviation .30286) and private commercial banks (Mean 3.4058, standard deviation .33128).
- Female employees of public commercial banks are more satisfied with their job, with a mean value of 3.54 compared to male employees
- Unreasonable performance targets, rude behaviour from the boss and extended working hours were some factors with which employees of private commercial banks are less satisfied.
- Salary augmentation was found to be essential for both public and private commercial banks.
- All independent variables, including Working Condition, Supervision (Technical & personal, Salary & Fringe Benefits, Growth Opportunity, Cooperative Employees, intrinsic feeling, and work-itself have a strong positive correlation with the job satisfaction for both public & private commercial banks.

16. Recommendations

The commercial banks of Bangladesh, without any doubt, are the epicentre of economic activities where the bankers are the heart of the system. Without proper care of the bankers, most of the whole effort's expectation is irrational. There is vast and massive room for improvement to increase the job satisfaction of commercial banks' employees.

- The authority of both private and public commercial banks should continuously strive for improvement in management, relationships at the workplace, remuneration packages and another side on which employees have satisfaction but not to a great degree.
- Managers should practice a participatory management style and consider every possible input while taking a decision. At the same time, the authority

should treat the employees in a way that create a feeling of ownership among the employees

- The authority of public commercial banks must take the necessary steps to improve the working condition. As it was observed to be the most noticeable factor with which employees are not satisfied. Authority can arrange for adequate employees for the needed branch because low-level staffing negatively impacts stress and workload. Moreover, they should trace the way to improve logistic support and adequate tools and equipment where digitalisation of every branch is the ultimate end. Management should avoid any kind of nepotism in the promotion and make the promotion process swifter, clear as crystal and motivational.
- On the other hand, the authority of private commercial banks should knock at the reasons for perceived insecurity about the job. It was observed through this paper job security is the main culprit of lowering down the satisfaction level of employees in private commercial banks. Employees of private commercial banks are neither satisfied nor dissatisfied with their remuneration, so that it can be a source of increasing satisfaction. Other than the above, reasonable working hours to make employees balance work-family life, good behaviour from the boss, and attainable performance goals may be considered.

Conclusion

In fine, job satisfaction is a part of behavioural science, and it can vary from institution to institution, branch to branch, person to person and even within the same person from time to time. The core destination of this study was to assess the job satisfaction of public and private commercial banks. The result of analysis on the primary data evinces that employees of both organisations experience the almost same level of satisfaction, but the level of satisfaction is below the expectation line. Employees of public commercial banks are almost highly satisfied with job security, but private commercial banks are dissatisfied with job security. It would not be wrong to say that if only adequate staffing and working environment can be improved, the satisfaction level of public commercial banks will increase dramatically, and job security can be thought of as a single magical tool for private commercial banks. If the authority takes care of the said problem, the employees of commercial banks will be satisfied, and delight results in a positive impact on banking services, customer satisfaction, commitment towards the organisation, and sustainable economic growth.

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Appendix A

Questionnaire

Dear sir/ Madam,

It is a survey to collect your valuable information, which will be used as primary data in a project work entitled "**Job Satisfaction: A comparative study between public and private commercial banks in Bangladesh**". The information will be used very confidentially. Therefore, I cordially request you to give your valuable feedback to complete the project successfully.

Name of Institution: Branch: Position:

Gender:

Please give a tick mark () according to the gap or match between your expectation and actual situation and consider the scale of satisfaction level used for each parameter. The question has been worded, indicating dissatisfaction and agreeing will indicate satisfaction with the matter.

Measurement of satisfaction level:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

S.N	Name of the variables	Level of satisfaction				
1	My basic salary is enough to maintain my living standard.	1	2	3	4	5
2	My bonus and extra benefits are influential.	1	2	3	4	5
3	I get equitable remuneration for work.	1	2	3	4	5
4	My colleagues helped me to solve a work-related problem.	1	2	3	4	5
5	My boss is friendly and care for personal issue.	1	2	3	4	5
6	The manager considers my suggestion while making a decision.	1	2	3	4	5
7	My boss handles us competently.	1	2	3	4	5
8	We get clear direction and feedback from manager.	1	2	3	4	5
9	Workplace is aesthetic, comfortable & supportive.	1	2	3	4	5
10	Organisation provides enough digital tools and	1	2	3	4	5

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
	equipment.					
11	My colleagues are cooperative and positive in their criticism.	1	2	3	4	5
12	The organisation has enough staff to get work done.	1	2	3	4	5
13	I am happy with the workload & stress at the workplace.	1	2	3	4	5
14	I can communicate easily with other employees in need.	1	2	3	4	5
15	The promotion and advancement procedure is free from biases.	1	2	3	4	5
16	Promotion occurs within time as prescribed in the promotion policy.	1	2	3	4	5
17	My current qualification and designation match perfectly.	1	2	3	4	5
18	I love my job because it allows me to keep meaningful contributions to my family, society and country.	1	2	3	4	5
19	Management recognizes my effort and contribution.	1	2	3	4	5
20	I feel satisfied with my job as it has given me a high social status and a sense of accomplishment.	1	2	3	4	5
21	I think my job is secured.	1	2	3	4	5
22	I can deploy my ability and knowledge to perform my job.	1	2	3	4	5
23	I am happy with my job as it requires performing different tasks from time to time.	1	2	3	4	5
24	My job is challenging, and I enjoy it.	1	2	3	4	5

25. Please mention any factor/ factors that can make you happier with your job.

- 1
- 2
- 3
- 4
- 5
- 6

26. Will you switch the organisation if you get a better opportunity?

1. Yes
2. No

Appendix B

Community table including job security
Communalities

	Initial	Extraction
Basic Salary	1.000	.831
Clear Direction & Feedback	1.000	.686
Bonus & Incentives	1.000	.816
Equitable Remuneration for work	1.000	.802
Competent Manager	1.000	.668
Helps from superior in personal issues	1.000	.706
Participation in Decision Making	1.000	.676
Due Time Promotion	1.000	.781
Digital Tools & Equipment	1.000	.819
Stress and Workload	1.000	.541
Logistic Support	1.000	.823
Open communication system	1.000	.727
Cooperation among the employees	1.000	.668
Level of staffing	1.000	.595
Perceived equity in promotion	1.000	.690
Position as per Qualification	1.000	.759
Job Security	1.000	.498
Help each other to solve a Problem	1.000	.723
Recognition for Good work	1.000	.604
Task Variety	1.000	.755
Meaningful contribution	1.000	.825
Sense of Achievement	1.000	.790
Challenging Responsibility	1.000	.672
Ability Utilization	1.000	.636

Extraction Method: Principal Component Analysis.

Factor analysis excluding job security due to low communality

Correlation Matrix ^a

a. Determinant
= 2.502E-5

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.715
Bartlett's Test of Sphericity	Approx. Chi-Square	3078.135
	Df	253
	Sig.	.000

Communalities

	Initial	Extraction
Basic Salary	1.000	.831
Clear Direction & Feedback	1.000	.689
Bonus & Incentives	1.000	.817
Equitable Remuneration for work	1.000	.802
Competent Manager	1.000	.668
Helps from superior in personal issues	1.000	.710
Participation in Decision Making	1.000	.669
Due Time Promotion	1.000	.790
Digital Tools & Equipment	1.000	.833
Stress and Workload	1.000	.571
Logistic Support	1.000	.817
Open communication system	1.000	.727
Cooperation among the employees	1.000	.669
Level of staffing	1.000	.627
Perceived equity in promotion	1.000	.693
Position as per Qualification	1.000	.758
Help each other to solve a Problem	1.000	.722
Recognition for Good work	1.000	.597
Task Variety	1.000	.753
Meaningful contribution	1.000	.837
Sense of Achievement	1.000	.805
Challenging Responsibility	1.000	.672
Ability Utilization	1.000	.636

Extraction Method: Principal Component Analysis.

Total Variance Explained												
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings					
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.563	15.491	15.491	3.563	15.491	15.491	2.915	12.674	12.674	2.915	12.674	12.674
2	3.093	13.448	28.939	3.093	13.448	28.939	2.764	12.016	24.690	2.764	12.016	24.690
3	2.627	11.421	40.360	2.627	11.421	40.360	2.490	10.828	35.517	2.490	10.828	35.517
4	2.231	9.700	50.059	2.231	9.700	50.059	2.232	9.705	45.222	2.232	9.705	45.222
5	1.882	8.184	58.243	1.882	8.184	58.243	2.222	9.663	54.885	2.222	9.663	54.885
6	1.790	7.782	66.025	1.790	7.782	66.025	2.059	8.953	63.838	2.059	8.953	63.838
7	1.508	6.557	72.582	1.508	6.557	72.582	2.011	8.744	72.582	2.011	8.744	72.582
8	.751	3.266	75.848									
9	.606	2.636	78.484									
10	.555	2.412	80.896									
11	.535	2.327	83.223									
12	.493	2.143	85.366									
13	.446	1.940	87.306									
14	.423	1.841	89.147									
15	.401	1.745	90.891									
16	.356	1.546	92.437									
17	.337	1.465	93.902									
18	.317	1.379	95.281									
19	.274	1.190	96.472									
20	.261	1.133	97.605									
21	.225	.977	98.582									
22	.206	.895	99.477									
23	.120	.523	100.000									

Extraction Method: Principal Component Analysis.

Component Matrix ^a

	Component						
	1	2	3	4	5	6	7
Digital Tools & Equipment	-.666	.483					
Logistic Support	-.631	.517					
Level of staffing	-.562						
Competent Manager	.549	.468					
Recognition for Good work	.543						
Stress and Workload	-.509	.416					
Participation in Decision Making		.606					
Clear Direction & Feedback	.411	.586					
Helps from superior in personal issues	.401	.546					
Position as per Qualification			.678				-.432
Due Time Promotion			.653				-.466
Perceived equity in promotion			.567				
Basic Salary			.477	.421			
Cooperation among the employees				-.473			
Bonus & Incentives			.411	.463			
Equitable remuneration for work	.425		.412	.437			
Challenging Responsibility					.649		
Task Variety				-.504	.635		
Ability Utilisation				-.421	.565		
Help each other to solve a Problem					-.535		
Open communication system			.407		-.436		
Meaningful contribution							.647
Sense of Achievement							.515

Extraction Method: Principal Component Analysis.

a. 7 components extracted.

Rotated Component Matrix ^a

	Component						
	1	2	3	4	5	6	7
Digital Tools & Equipment	.890						
Logistic Support	.882						
Level of staffing	.755						
Stress and Workload	.748						
Helps from superior in personal issues		.827					
Clear Direction & Feedback		.802					
Competent Manager		.773					
Participation in Decision Making		.722					
Basic Salary			.902				
Bonus & Incentives			.897				
Equitable remuneration for work			.881				
Due Time Promotion				.880			
Position as per Qualification				.846			
Perceived equity in promotion				.811			
Help each other to solve a Problem					.842		
Open communication system					.835		
Cooperation among the employees					.795		
Task Variety						.860	
Challenging Responsibility						.802	
Ability Utilisation						.776	
Meaningful contribution							.904
Sense of Achievement							.882
Recognition for Good work		.465					.581

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Type of Bank = Public commercial Bank
 Statistics ^a

	N		Mean	Std. Deviation
	Valid	Missing		
Basic Salary	150	0	3.60	1.036
Clear Direction & Feedback	150	0	3.71	.661
Bonus & Incentives	150	0	3.62	1.034
Equitable Remuneration for work	150	0	3.64	1.032
Competent Manager	150	0	3.63	1.167
Helps from superior in personal issues	150	0	3.51	.910
Participation in Decision Making	150	0	3.49	1.028
Due Time Promotion	150	0	2.71	1.348
Digital Tools & Equipment	150	0	2.34	.995
Stress and Workload	150	0	2.39	.926
Logistic Support	150	0	2.23	.972
Open communication system	150	0	3.77	.752
Cooperation among the employees	150	0	3.80	.676
Level of staffing	150	0	2.09	.958
Perceived Equity in promotion	150	0	3.12	1.023
Position as per Qualification	150	0	3.07	1.379
Job Security	150	0	4.29	.727
Help each other to solve a Problem	150	0	3.79	.816
Recognition for Good work	150	0	3.68	.972
Task Variety	150	0	3.92	.690
Meaningful contribution	150	0	3.95	.617
Sense of Achievement	150	0	3.98	.618
Challenging Responsibility	150	0	3.99	.786
Ability Utilization	150	0	3.78	.732

Frequency Table

Basic Salary ^a

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	28	18.7	18.7	22.0
	Undecided	8	5.3	5.3	27.3
	Satisfied	90	60.0	60.0	87.3
	Highly Satisfied	19	12.7	12.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Clear Direction & Feedback ^a

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dissatisfied	9	6.0	6.0	6.0
	Undecided	34	22.7	22.7	28.7
	Satisfied	99	66.0	66.0	94.7
	Highly Satisfied	8	5.3	5.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Bonus & Incentives ^a

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	30	20.0	20.0	22.0
	Undecided	11	7.3	7.3	29.3
	Satisfied	83	55.3	55.3	84.7
	Highly Satisfied	23	15.3	15.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Equitable remuneration for work ^a

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	24	16.0	16.0	19.3
	Undecided	14	9.3	9.3	28.7
	Satisfied	84	56.0	56.0	84.7
	Highly Satisfied	23	15.3	15.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Competent Manager^a

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Dissatisfied	18	12.0	12.0	12.0
	Dissatisfied	4	2.7	2.7	14.7
	Undecided	19	12.7	12.7	27.3
	Satisfied	83	55.3	55.3	82.7
	Highly Satisfied	26	17.3	17.3	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Helps from superior in personal issues^a

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Highly Dissatisfied	7	4.7	4.7	4.7
	Dissatisfied	13	8.7	8.7	13.3
	Undecided	35	23.3	23.3	36.7
	Satisfied	86	57.3	57.3	94.0
	Highly Satisfied	9	6.0	6.0	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Participation in Decision Making^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	8	5.3	5.3	5.3
	Dissatisfied	23	15.3	15.3	20.7
	Undecided	20	13.3	13.3	34.0
	Satisfied	86	57.3	57.3	91.3
	Highly Satisfied	13	8.7	8.7	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Due Time Promotion ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	24	16.0	16.0	16.0
	Dissatisfied	69	46.0	46.0	62.0
	Undecided	5	3.3	3.3	65.3
	Satisfied	30	20.0	20.0	85.3
	Highly Satisfied	22	14.7	14.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Digital Tools & Equipment ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	23	15.3	15.3	15.3
	Dissatisfied	85	56.7	56.7	72.0
	Undecided	12	8.0	8.0	80.0
	Satisfied	28	18.7	18.7	98.7
	Highly Satisfied	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Stress and Workload ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	15	10.0	10.0	10.0
	Dissatisfied	92	61.3	61.3	71.3
	Undecided	12	8.0	8.0	79.3
	Satisfied	31	20.7	20.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Logistic Support ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	28	18.7	18.7	18.7
	Dissatisfied	86	57.3	57.3	76.0
	Undecided	11	7.3	7.3	83.3
	Satisfied	23	15.3	15.3	98.7
	Highly Satisfied	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Open communication system ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	1	.7	.7	.7
	Dissatisfied	13	8.7	8.7	9.3
	Undecided	18	12.0	12.0	21.3
	Satisfied	105	70.0	70.0	91.3
	Highly Satisfied	13	8.7	8.7	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Cooperation among the employees ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	2	1.3	1.3	1.3
	Dissatisfied	8	5.3	5.3	6.7
	Undecided	16	10.7	10.7	17.3
	Satisfied	116	77.3	77.3	94.7
	Highly Satisfied	8	5.3	5.3	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Level of staffing ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	38	25.3	25.3	25.3
	Dissatisfied	83	55.3	55.3	80.7
	Undecided	7	4.7	4.7	85.3
	Satisfied	21	14.0	14.0	99.3
	Highly Satisfied	1	.7	.7	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Perceived equity in promotion ^a

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Highly Dissatisfied	4	2.7	2.7	2.7
	Dissatisfied	50	33.3	33.3	36.0
	Undecided	28	18.7	18.7	54.7
	Satisfied	60	40.0	40.0	94.7
	Highly Satisfied	8	5.3	5.3	100.0
Total		150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Position as per Qualification ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	22	14.7	14.7	14.7
Dissatisfied	38	25.3	25.3	40.0
Undecided	31	20.7	20.7	60.7
Satisfied	26	17.3	17.3	78.0
Highly Satisfied	33	22.0	22.0	100.0
Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Job Security ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Dissatisfied	8	5.3	5.3	5.3
Satisfied	83	55.3	55.3	60.7
Highly Satisfied	59	39.3	39.3	100.0
Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Help each other to solve a Problem ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	5	3.3	3.3	3.3
Dissatisfied	10	6.7	6.7	10.0
Undecided	9	6.0	6.0	16.0
Satisfied	114	76.0	76.0	92.0
Highly Satisfied	12	8.0	8.0	100.0
Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Recognition for Good work ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	5	3.3	3.3	3.3
Dissatisfied	20	13.3	13.3	16.7
Undecided	12	8.0	8.0	24.7
Satisfied	94	62.7	62.7	87.3
Highly Satisfied	19	12.7	12.7	100.0
Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Task Variety ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	4	2.7	2.7	4.7
	Undecided	12	8.0	8.0	12.7
	Satisfied	114	76.0	76.0	88.7
	Highly Satisfied	17	11.3	11.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Meaningful contribution ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Dissatisfied	7	4.7	4.7	4.7
	Undecided	11	7.3	7.3	12.0
	Satisfied	114	76.0	76.0	88.0
	Highly Satisfied	18	12.0	12.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Sense of Achievement ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Dissatisfied	6	4.0	4.0	4.0
	Undecided	12	8.0	8.0	12.0
	Satisfied	111	74.0	74.0	86.0
	Highly Satisfied	21	14.0	14.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Challenging Responsibility ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	4	2.7	2.7	2.7
	Dissatisfied	4	2.7	2.7	5.3
	Undecided	11	7.3	7.3	12.7
	Satisfied	102	68.0	68.0	80.7
	Highly Satisfied	29	19.3	19.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Ability Utilisation ^a

	Frequency	Per cent	Valid cent	Per Cumulative Percent
Valid Dissatisfied	14	9.3	9.3	9.3
Undecided	18	12.0	12.0	21.3
Satisfied	105	70.0	70.0	91.3
Highly Satisfied	13	8.7	8.7	100.0
Total	150	100.0	100.0	

a. Type of Bank = Public commercial Bank

Type of Bank = private commercial Bank

Statistics ^a

	N		Mean	Std. Deviation
	Valid	Missing		
Basic Salary	150	0	2.96	1.029
Clear Direction & Feedback	150	0	3.59	.942
Bonus & Incentives	150	0	2.97	.948
Equitable remuneration for work	150	0	3.15	.979
Competent Manager	150	0	3.35	1.024
Helps from superior in personal issues	150	0	3.53	.872
Participation in Decision Making	150	0	3.61	.866
Due Time Promotion	150	0	2.80	1.135
Digital Tools & Equipment	150	0	3.75	.723
Stress and Workload	150	0	3.11	.945
Logistic Support	150	0	3.89	.853
Open communication system	150	0	3.51	.995
Cooperation among the employees	150	0	3.55	.909
Level of staffing	150	0	2.96	1.080
Perceived Equity in promotion	150	0	3.39	.897
Position as per Qualification	150	0	2.85	1.052
Job Security	150	0	2.57	1.006
Help each other to solve a Problem	150	0	3.80	.803
Recognition for Good work	150	0	3.29	.952
Task Variety	150	0	3.72	.868
Meaningful contribution	150	0	3.83	.680
Sense of Achievement	150	0	3.84	.828
Challenging Responsibility	150	0	3.96	.722
Ability Utilization	150	0	3.74	.855

a. Type of Bank = private commercial Bank

Frequency Table

Basic Salary ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	8	5.3	5.3	5.3
	Dissatisfied	58	38.7	38.7	44.0
	Undecided	16	10.7	10.7	54.7
	Satisfied	68	45.3	45.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Clear Direction & Feedback ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	25	16.7	16.7	18.7
	Undecided	16	10.7	10.7	29.3
	Satisfied	92	61.3	61.3	90.7
	Highly Satisfied	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Bonus & Incentives ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	59	39.3	39.3	41.3
	Undecided	28	18.7	18.7	60.0
	Satisfied	59	39.3	39.3	99.3
	Highly Satisfied	1	.7	.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Equitable remuneration for work ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	50	33.3	33.3	35.3
	Undecided	22	14.7	14.7	50.0
	Satisfied	72	48.0	48.0	98.0
	Highly Satisfied	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Competent Manager ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	36	24.0	24.0	27.3
	Undecided	20	13.3	13.3	40.7
	Satisfied	79	52.7	52.7	93.3
	Highly Satisfied	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Helps from superior in personal issues ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	2	1.3	1.3	1.3
	Dissatisfied	23	15.3	15.3	16.7
	Undecided	28	18.7	18.7	35.3
	Satisfied	88	58.7	58.7	94.0
	Highly Satisfied	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Participation in Decision Making ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	1	.7	.7	.7
	Dissatisfied	20	13.3	13.3	14.0
	Undecided	31	20.7	20.7	34.7
	Satisfied	83	55.3	55.3	90.0
	Highly Satisfied	15	10.0	10.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Due Time Promotion ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	13	8.7	8.7	8.7
	Dissatisfied	64	42.7	42.7	51.3
	Undecided	24	16.0	16.0	67.3
	Satisfied	38	25.3	25.3	92.7
	Highly Satisfied	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Digital Tools & Equipment ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Dissatisfied	16	10.7	10.7	10.7
	Undecided	14	9.3	9.3	20.0
	Satisfied	111	74.0	74.0	94.0
	Highly Satisfied	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Stress and Workload ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	1	.7	.7	.7
	Dissatisfied	54	36.0	36.0	36.7
	Undecided	24	16.0	16.0	52.7
	Satisfied	69	46.0	46.0	98.7
	Highly Satisfied	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Logistic Support ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	1	.7	.7	.7
	Dissatisfied	15	10.0	10.0	10.7
	Undecided	12	8.0	8.0	18.7
	Satisfied	93	62.0	62.0	80.7
	Highly Satisfied	29	19.3	19.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Open communication system ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	26	17.3	17.3	20.7
	Undecided	21	14.0	14.0	34.7
	Satisfied	84	56.0	56.0	90.7
	Highly Satisfied	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Cooperation among the employees ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	4	2.7	2.7	2.7
Dissatisfied	24	16.0	16.0	18.7
Undecided	14	9.3	9.3	28.0
Satisfied	101	67.3	67.3	95.3
Highly Satisfied	7	4.7	4.7	100.0
Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Level of staffing ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	5	3.3	3.3	3.3
Dissatisfied	68	45.3	45.3	48.7
Undecided	12	8.0	8.0	56.7
Satisfied	58	38.7	38.7	95.3
Highly Satisfied	7	4.7	4.7	100.0
Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Perceived equity in promotion ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	5	3.3	3.3	3.3
Dissatisfied	19	12.7	12.7	16.0
Undecided	46	30.7	30.7	46.7
Satisfied	72	48.0	48.0	94.7
Highly Satisfied	8	5.3	5.3	100.0
Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Position as per Qualification ^a

	Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid Highly Dissatisfied	12	8.0	8.0	8.0
Dissatisfied	57	38.0	38.0	46.0
Undecided	24	16.0	16.0	62.0
Satisfied	55	36.7	36.7	98.7
Highly Satisfied	2	1.3	1.3	100.0
Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Job Security ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	17	11.3	11.3	11.3
	Dissatisfied	71	47.3	47.3	58.7
	Undecided	22	14.7	14.7	73.3
	Satisfied	40	26.7	26.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Help each other to solve a Problem ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	2	1.3	1.3	1.3
	Dissatisfied	14	9.3	9.3	10.7
	Undecided	12	8.0	8.0	18.7
	Satisfied	106	70.7	70.7	89.3
	Highly Satisfied	16	10.7	10.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Recognition for Good work ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	35	23.3	23.3	26.7
	Undecided	23	15.3	15.3	42.0
	Satisfied	85	56.7	56.7	98.7
	Highly Satisfied	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Task Variety ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	3	2.0	2.0	2.0
	Dissatisfied	18	12.0	12.0	14.0
	Undecided	11	7.3	7.3	21.3
	Satisfied	104	69.3	69.3	90.7
	Highly Satisfied	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Meaningful contribution ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	2	1.3	1.3	1.3
	Dissatisfied	8	5.3	5.3	6.7
	Undecided	13	8.7	8.7	15.3
	Satisfied	117	78.0	78.0	93.3
	Highly Satisfied	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Sense of Achievement ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	5	3.3	3.3	3.3
	Dissatisfied	9	6.0	6.0	9.3
	Undecided	8	5.3	5.3	14.7
	Satisfied	111	74.0	74.0	88.7
	Highly Satisfied	17	11.3	11.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Challenging Responsibility ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	2	1.3	1.3	1.3
	Dissatisfied	7	4.7	4.7	6.0
	Undecided	9	6.0	6.0	12.0
	Satisfied	109	72.7	72.7	84.7
	Highly Satisfied	23	15.3	15.3	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Ability Utilisation ^a

		Frequency	Per cent	Valid cent	Per Cumulative Per cent
Valid	Highly Dissatisfied	4	2.7	2.7	2.7
	Dissatisfied	15	10.0	10.0	12.7
	Undecided	10	6.7	6.7	19.3
	Satisfied	108	72.0	72.0	91.3
	Highly Satisfied	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

a. Type of Bank = private commercial Bank

Job satisfaction of public and private commercial banks

Type of Bank			N	Minimum	Maximum	Mean	Std. Deviation
Public commercial Bank	Job Satisfaction		150	2.71	4.17	3.4211	.30286
	Valid N (listwise)		150				
private commercial Bank	Job Satisfaction		150	2.46	4.08	3.4058	.33128
	Valid N (listwise)		150				

Gender and job satisfaction

Gender			N	Minimum	Maximum	Mean	Std. Deviation
Male	Public commercial Bank	Job Satisfaction	119	2.71	4.13	3.3890	.27879
		Valid N (listwise)	119				
	private commercial Bank	Job Satisfaction	118	2.46	4.08	3.4022	.34279
		Valid N (listwise)	118				
Female	Public commercial Bank	Job Satisfaction	31	2.88	4.17	3.5444	.36067
		Valid N (listwise)	31				
	private commercial Bank	Job Satisfaction	32	2.71	4.04	3.4193	.28944
		Valid N (listwise)	32				

Organisation and individual-centric factors and job satisfaction

Type of Bank			N	Sum	Mean	Std. Deviation	Variance
Public bank	commercial	Organizational factors	150	486.70	3.2447	.38428	.148
		Individual centric factors	150	582.50	3.8833	.43382	.188
private Bank	commercial	Organizational factors	150	498.37	3.3224	.40087	.161
		Individual centric factors	150	559.67	3.7311	.47329	.224

Correlations ^a

		Job Satisfac tion	Salary & Fringe Benefits1	Supervision(Technical & Personal)	Working Condi tion	Growth Oppor tunity	Coopera tive Employees Feelings	Intrin sic Feelings	The Work Itself
Job Satisfaction	Pearson Correlation	1	.291**	.449**	.403**	.491**	.437**	.408**	.320**
	Sig. (2- tailed)		.000	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150
Salary & Fringe Benefits1	Pearson Correlation	.291**	1	.004	-.053	-.002	.007	-.034	-.172*
	Sig. (2- tailed)	.000		.960	.517	.978	.931	.679	.036
	N	150	150	150	150	150	150	150	150
Supervision(Techni cal & Personal)	Pearson Correlation	.449**	.004	1	-.115	-.142	.344**	.347**	-.044
	Sig. (2- tailed)	.000	.960		.160	.082	.000	.000	.589
	N	150	150	150	150	150	150	150	150
Working Condition	Pearson Correlation	.403**	-.053	-.115	1	.094	-.091	-.083	.118
	Sig. (2- tailed)	.000	.517	.160		.255	.266	.314	.151
	N	150	150	150	150	150	150	150	150
Growth Opportunity	Pearson Correlation	.491**	-.002	-.142	.094	1	.041	.006	.125
	Sig. (2- tailed)	.000	.978	.082	.255		.617	.944	.129

Cooperative Employees	N	150	150	150	150	150	150	150	150	150	150	150	150	150
	Pearson Correlation	.437**	.007	.344**	-.091	.041	.041	1	.107	.181*				
	Sig. (2-tailed)	.000	.931	.000	.266	.617	.617		.191	.026				
Intrinsic Feelings	N	150	150	150	150	150	150	150	150	150	150	150	150	150
	Pearson Correlation	.408**	-.034	.347**	-.083	.006	.006	.107	1	.006				
	Sig. (2-tailed)	.000	.679	.000	.314	.944	.944	.191		.945				
The Work Itself	N	150	150	150	150	150	150	150	150	150	150	150	150	150
	Pearson Correlation	.320**	-.172*	-.044	.118	.125	.125	.181*	.006	1				
	Sig. (2-tailed)	.000	.036	.589	.151	.129	.129	.026	.945					
	N	150	150	150	150	150	150	150	150	150	150	150	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a. Type of Bank = Public commercial Bank

Cooperative Employees	Pearson Correlation	.367**	.002	.003	.037	.188*	1	.009	.019
	Sig. (2-tailed)	.000	.982	.975	.650	.021		.910	.818
	N	150	150	150	150	150	150	150	150
Intrinsic Feelings	Pearson Correlation	.451**	.059	.372**	.058	.022	.009	1	.022
	Sig. (2-tailed)	.000	.476	.000	.483	.785	.910		.787
	N	150	150	150	150	150	150	150	150
The Work Itself	Pearson Correlation	.362**	.086	.170*	.008	.042	.019	.022	1
	Sig. (2-tailed)	.000	.294	.038	.924	.612	.818	.787	
	N	150	150	150	150	150	150	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a. Type of Bank = private commercial Bank

Regression

Type of Bank = Public commercial Bank

Variables Entered/Removed^{a,b}

Model	Variables Entered	Variables Removed	Method
1	Intrinsic Feeling, Growth opportunity, The Work Itself, Cooperative Employees, Working condition, Salary & Fringe Benefits, Supervision (Technical & personal) ^c		Enter

a. Type of Bank = Public commercial Bank
 b. Dependent Variable: Job Satisfaction
 c. All requested variables entered.

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.990 ^b	.980	.979	.04365

a. Type of Bank = Public commercial Bank

b. Predictors: (Constant), Intrinsic Feeling, Growth opportunity, The Work Itself, Cooperative Employees, Working condition, Salary & Fringe Benefits, Supervision (Technical & personal)

ANOVA^{a,b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.397	7	1.914	1004.490	.000 ^c
	Residual	.271	142	.002		
	Total	13.667	149			

a. Type of Bank = Public commercial Bank

b. Dependent Variable: Job Satisfaction

c. Predictors: (Constant), Intrinsic Feeling, Growth opportunity, The Work Itself, Cooperative Employees, Working condition, Salary & Fringe Benefits, Supervision (Technical & personal)

Coefficients ^{a,b}

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	3.448	.005		744.686	.000	3.439	3.457
Working condition	.137	.004	.405	33.204	.000	.129	.145
Supervision (Technical & personal)	.150	.004	.485	39.501	.000	.142	.157
Salary & Fringe Benefits	.101	.004	.334	27.408	.000	.094	.108
Growth opportunity	.144	.003	.527	44.152	.000	.138	.151
Cooperative Employees	.096	.004	.296	24.319	.000	.088	.104
The Work Itself	.091	.004	.290	23.664	.000	.083	.098
Intrinsic Feeling	.100	.004	.306	25.815	.000	.093	.108

a. Type of Bank = Public commercial Bank

b. Dependent Variable: Job Satisfaction

Type of Bank = private commercial Bank

Variables Entered/Removed ^{a,b}

Model	Variables Entered	Variables	
		Removed	Method
1	Intrinsic Feeling, Cooperative Employees, Salary & Fringe Benefits, Growth opportunity, The Work Itself, Supervision (Technical & personal), Working condition ^c		Enter

a. Type of Bank = private commercial Bank

b. Dependent Variable: Job Satisfaction c. All requested variables entered.

Model Summary ^a

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.986 ^b	.972	.971	.05628

a. Type of Bank = private commercial Bank

b. Predictors: (Constant), Intrinsic Feeling, Cooperative Employees, Salary & Fringe Benefits, Growth opportunity, The Work Itself, Supervision (Technical & personal), Working condition

ANOVA ^{a,b}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15.902	7	2.272	717.303	.000 ^c
	Residual	.450	142	.003		
	Total	16.352	149			

a. Type of Bank = private commercial Bank

b. Dependent Variable: Job Satisfaction

c. Predictors: (Constant), Intrinsic Feeling, Cooperative Employees, Salary & Fringe Benefits, Growth opportunity, The Work Itself, Supervision (Technical & personal), Working condition

Coefficients ^{a,b}

Model	Unstandardised Coefficients		Standardised Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
1 (Constant)	3.395	.007		498.584	.000	3.381	3.408
Working condition	.117	.007	.242	16.177	.000	.103	.131
Supervision (Technical & personal)	.147	.005	.455	31.287	.000	.138	.157
Salary & Fringe Benefits	.110	.005	.310	21.345	.000	.100	.120
Growth opportunity	.143	.005	.380	26.648	.000	.132	.153
Cooperative Employees	.110	.004	.351	24.508	.000	.101	.118
The Work Itself	.095	.005	.294	20.746	.000	.086	.104
Intrinsic Feeling	.094	.004	.303	21.543	.000	.086	.103

a. Type of Bank = private commercial Bank

b. Dependent Variable: Job Satisfaction

A Case Study on Part-Time Job and Assessment of Present Jobs Condition for Students in Rajshahi City

Md. Abdulla Hill Baki*
Zinnur Rahman*
Rutbahtuz Zahan*
Mojaher Hossain*
Nabila Islam*

Abstract

Rajshahi is significantly known as an educational city in Bangladesh. However, the proportion of available part-time jobs for students in Rajshahi is much lower than that of students searching for part-time jobs. This paper emphasises the present part-time jobs condition and attempts to solve the problems faced by the students in Rajshahi city. The research data are gathered by a questionnaire survey with the help of the snowball method. Targeting the students from different universities in Rajshahi, around 68 (sixty-eight) samples were taken for the study. This research scrutinised the relation among job reason, monthly income, expenditure, savings, working environment, job satisfaction, income satisfaction and job facilities. A qualitative approach is utilised to analyse the impact of a part-time job on students. Several factors could influence students' decision to do part-time jobs. Analysing data with MS Excel'19, it is noticeable that 69% of students are satisfied with the income from their part-time jobs and a large number of students, almost 50% prefer tuition as their primary part-time job. However,

* Undergraduate student, Department of Urban and Regional Planning, University of Engineering & Technology, Rajshahi. E-mails: ahbnishad.ret@gmail.com; runnurahman007@gmail.com; rutbah18@gmail.com; jesan5385@gmail.com; islamnabila3225@gmail.com

around 20% of students' academic activities are hampered by part-time jobs. This research can help the Govt. city corporation, the industry, and other organisations create more job opportunities and improve the present job condition for the students in Rajshahi city.

JEL Classification J21 · J24 · J28

Keywords Part-time Jobs · Job Condition · Snowball Method · Questionnaire · Tuition

Introduction

Now a day's part-time job is necessary to overwhelm the world's economic crisis and be experienced in the job field (Nazri, 2017). A part-time job is where workers' salary is determined according to their working hours, and students can work in their free time when they do not have any classes. According to Douglas c., Maynard Todd, J. Thorseinson, Natalya M. Parfynova (2006), the working hours of part-time jobs should be less than 30 to 35 hours per week, but it depends on the company policy and the need of the company policy (Nazri, 2017). Some countries allow their students to do the part-time job for learning and acquiring knowledge without any stress. It is found that the number of part-time workers has increased from 25% to 50% in the last 20 years in most developed countries, excluding the United States. About 50% to 60% of all university students are part-time (Berkley,1997; ABS, 2002; Curtis and Williams, 2002; Lashley, 2005). According to the Women's policy research report, females are nine times reliable than males to work in a part-time capacity over a full-time capacity in the United States, but in Bangladesh, the opposite scenario is seen. It is found that the countries with more availability of part-time jobs are preferable to the students for their higher studies. Part-time jobs were part of the student's experience. However, the number of students working part-time is gradually increasing due to different needs (Watts & Pickering, 2000).

In this paper, several issues are identified regarding students working part-time jobs. Part-time jobs are becoming quite popular among young generations, particularly among college and university students of Bangladesh. Rajshahi is called the educational hub of the north zone of Bangladesh. So, a part-time job is a familiar term here. However, the proportion of available part-time jobs for students in Rajshahi, much lower than the students searching for part-time jobs. Around 60000 students of Rajshahi University, RUET, Rajshahi Medical College, Rajshahi College and Varendra University is included in the research. This research can help the Govt. city corporation, the industry, and other organisations create more job opportunities and improve the present job condition for the students in Rajshahi city.

Rajshahi University, RUET, Rajshahi Medical College, Rajshahi College, Varendra University have been visited for the study purpose. Necessary information has been collected from the students of these Universities. 30% of them around 18000 students are connected to part-time jobs. Sixty-eight samples have been taken among those students for the study. The study shows that the popularity of part-time jobs in metropolitan city Rajshahi. Students mainly chose a part-time job for their self-experience to identify the existing job condition and quality of part-time jobs questionnaire survey had conducted, Also, with the help of snowball sampling was taken to detect the target population for sampling.

Several educational institutions of Rajshahi have examined the condition of a part-time job for students. The students of all universities and colleges were not included in this study because of the lack of human resources and time. If the sample size were more than 68, it would be more fruitful. It was also difficult to engage all the respondents in data collection because of their business.

The objectives of the study are:

- To identify the present condition of part-time jobs for students.
- To find out the scope of developing students' job conditions and opportunities.

Literature Review

Several studies reviewed part-time jobs. Mainly most of the studies are from international papers. Because this kind of studies not done vastly in Bangladesh. In Rajshahi, there is no work done in a part-time job either. A part-time job is defined as employment that offers fewer hours per week than a full-time job by International Labour Organization (2003). In every country, the working time is different in terms of a part-time job. In Australia (2007), a part-time working hour is less than 32 hours per week. In Canada (2007), less than 30 hours per week is considered a part-time job. According to the Bureau of Labour Statistics, working time is considered between 1 to 34 hours per week. In many countries, employees are not considered to have team member benefits (i10.org).

About 40% of students from Spain, Sweden and Finland have working experience before joining higher education. Generally, students from higher educated families have less working experience than lower education background students. (Social and Economic condition of student's life in Europe) From 1996 to 2006, the number of students involved with a part-time job increased about 50% in the UK (UK Labour force survey, 2008). A part-time job can be classified under two headings, on-campus and off-campus part-time jobs—the campus jobs

like T.A, Part-time Librarian, Campus café; and off-campus jobs, such as that in the Pizza hut, KFC, Customer service. Private tuition is the primary part-time job in Bangladesh. However, gradually different sectors of part-time jobs are increasing (Sarah and et al. n.d). In recent times students of Bangladesh have been observing the importance of a part-time job. Moreover, they are trying to get part-time jobs, but they are not getting enough jobs because of the lack of job sectors.

Methods

Part-time jobs are becoming popular worldwide. Moreover, it is also very much known in Bangladesh too. So, at this stage, an extensive literature review on the journal, books, and different student projects have been done. This review gives us the direction of the research.

The group visited the possible locations to overview the existing condition of the part-time job of a student. According to the study purpose Rajshahi University, RUET. Rajshahi College, Rajshahi Medical College and Varendra University are taken under consideration.

Two objectives were formulated for the study. Based on this objective, the study was conducted.

Primary data was collected for the study. All primary data were collected by field survey, reconnaissance survey and questionnaire survey.

Firstly, the group has done a reconnaissance survey on those areas. The reconnaissance survey was conducted to identify the study's target people and find the existing condition.

The target population was estimated at around 95000, where sampling is done by the method of sample size calculation. The sample size is the number of completed responses that a survey receives. It is called a sample because it only represents part of the group of people (or target population) whose opinions or behaviour will be cared about.

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

- N = population size
- e = Margin of error (percentage in decimal form)
- z = z-score

For the confidence level of 90%, the z score is 1.65, and from the above calculation, the final sample size becomes about 68. These 68 data were collected by the snowball sampling method.

The questionnaire was drafted based on two formulated objectives. The questionnaire was developed in three major parts. The questionnaire survey is the overview of important information's needed for the study. The questionnaire clearly shows the existing condition, the quality of part-time jobs, present condition and how it can develop.

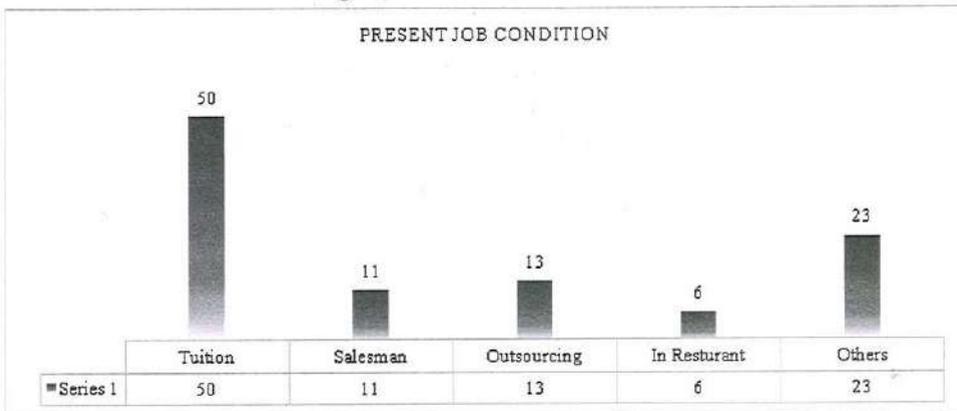
Field testing of the drafted questionnaire was performed in the selected study areas. The primary objective was finding the fine-tune of the questions. It helps to finalise the questionnaire. Then snowball sampling was conducted to find the target population for the study.

The gathered data were analysed with the help of MS Excel.

Results and Discussion

➤ Present Job Condition

Figure 1: Present Job Condition

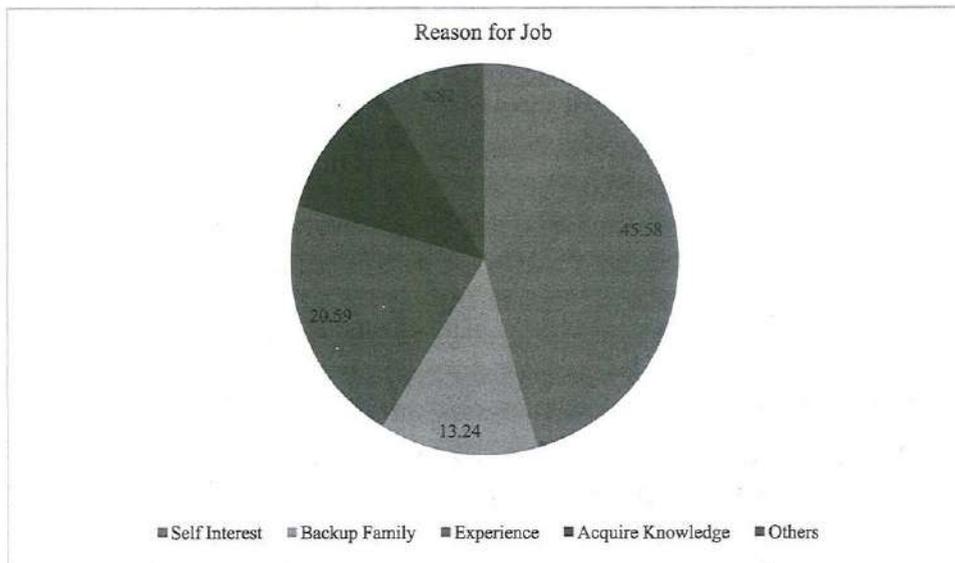


(Source: Prepared by Authors, 2019)

The graph shows the present job condition of students in Rajshahi. The majority of students, around 50%, take tuition as their primary job. Likely 24% of students choose different jobs. A small number of students take salesman, outsourcing and in the restaurant as their job. The graph shows that about 50% of the students prefer to take tuition as their part-time job. Tuition is preferable because the work hour is suitable and does not hamper academic activities and other activities. Many students are becoming unfriendly to tuition. Because students face some significant problems in getting tuition. Most of the student's monthly incomes are not satisfactory. Working behaviour is good. In the case of part-time jobs, girls need to ensure safety. Ignoring these problems, most of the students get tuition as a part-time job.

On the contrary, a restaurant job is very time killing because one has to give 10-12 hours in the workplace. The same thing happens with students working as salesman, which hampers their academic activities. Their monthly salary is not satisfactory. Most of the students who work as salesman and in the restaurant are from Rajshahi city. Most of the students of Rajshahi College work as a salesman and in restaurants. 11% of the students are involved in outsourcing. Besides students, outsourcing and various internet-based jobs also serve as a source of income for others people. In this case, students become more proficient in web development, graphics design and various software-based work. About 24% of students are involved with part-time jobs like marketing, small business, online base work, radio station and photography. Although photography is a hobby of students, working as photographers in various programmes, they earn money. Above all, a part-time job is essential and helpful to solve the financial problem for students.

Figure 2: Reason for Part-time Job



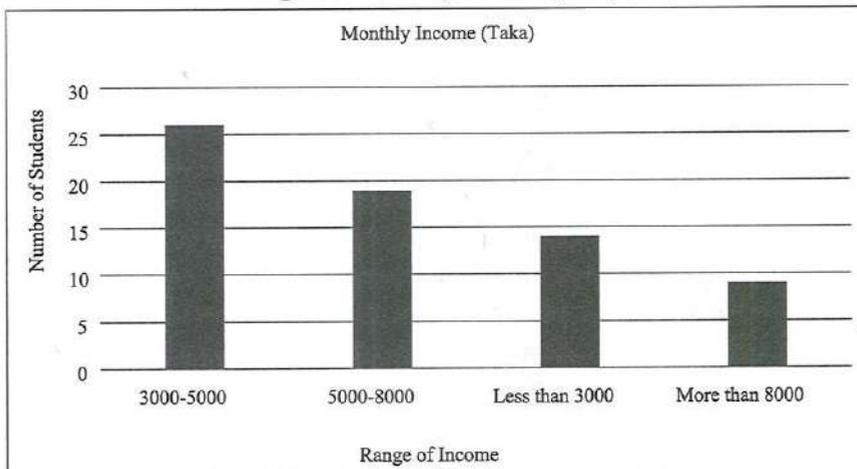
(Source: Prepared by Authors, 2019)

This pie chart shows the reason behind a student taking a part-time job. Maximum students around 46% involved in a part-time job because of their self-interest. 21% of students choose a part-time job to gain experience because, in every job field, an experienced person is required. Moreover, around 14% of students choose a job to backup their family and 9% for others. Students mainly

take part-time jobs to earn money for their self-interest and gather experience. Mainly in western countries, students want to do part-time jobs to support their tuition fees and sometimes living. However, mainly in our country context, students involving in part-time jobs for gaining experience in the working environment. Students want to earn money and gain experience, also supporting their families. For this reason, part-time jobs getting popular in Bangladesh also. Most of the students now want to do something with their career-oriented or gain experiences.

➤ Monthly Income

Figure 3: Monthly Income (Taka)



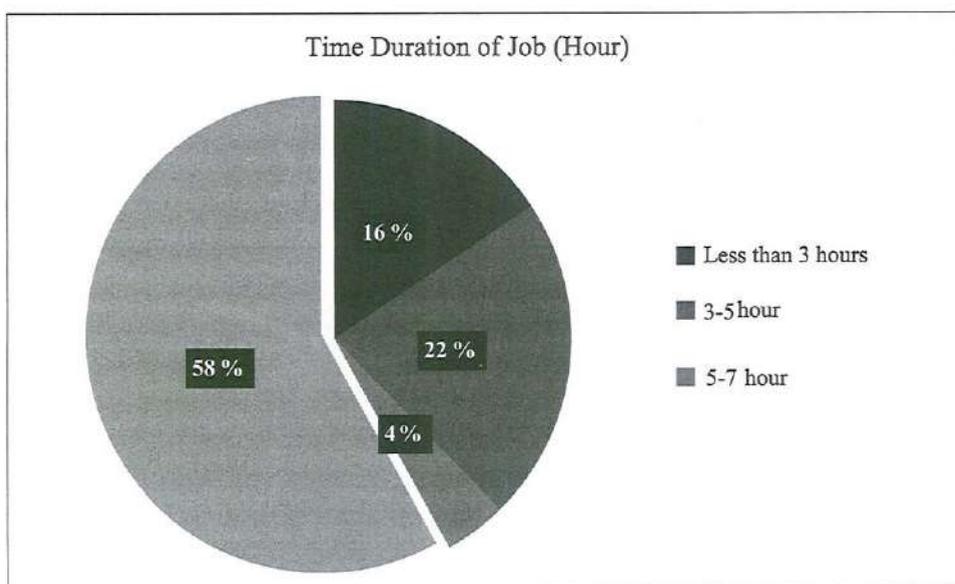
(Source: By Authors 2019)

This bar chart shows that most of the student's income range is 3000-5000. This range is for those students who are doing tuition. Most students are drawn to tuition because they earn enough in a short period. Besides, tuition does not affect the academic career of students. The students who work other jobs such as photography, outsourcing, small business and online-based work without tuition have a monthly income of almost this range. This range is not increasing because guardians are not willing to pay more from this city's economic condition. Most of the students are not satisfied with their salary according to their part-time job. In this income range, students do almost all jobs. Students do one or more tuition in this income range. Those students who do outsourcing work, photography and small business also earn 7000 or 8000 takas monthly. Around 20 students from our survey income range is 5000-8000. Around 14 students are less than 3000, and 10 students' income range are more than 8000. This range is not

suitable for those working as salesman or in restaurants because they have to work 10-12 hours. In the shopping malls, the condition of giving a job is to work 12 hours. So, who are required they follow the condition? In this case, the authority can change this working condition and give a reasonable salary to the employee, which will be helpful.

➤ Time Duration

Figure 4: Time Duration of Job



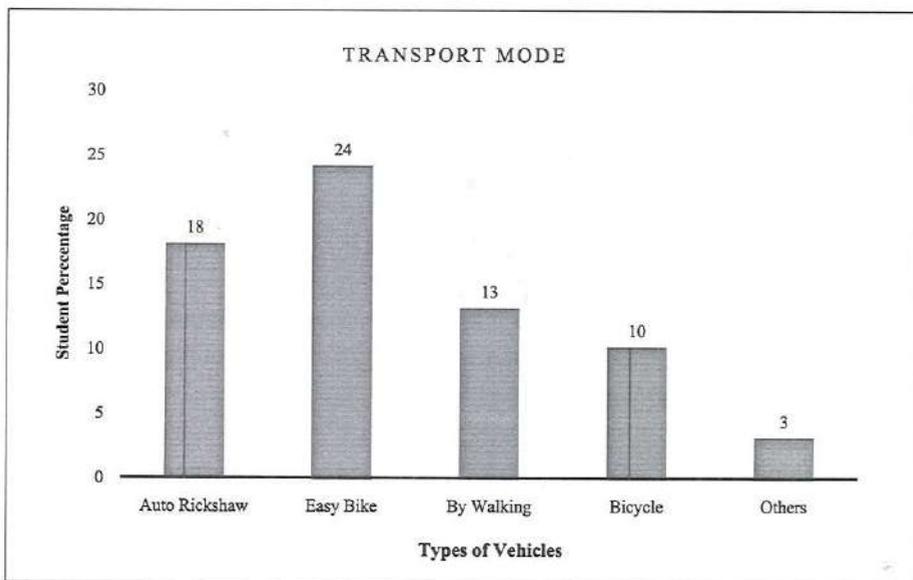
(Source: Prepared by Authors, 2019)

The pie chart shows the students time duration in their part-time job. Most of them, around 60%, spend more than 7 hours in their job. Because the students who are taking tuition as their part-time maximum do more than one tuition and other students like sales-man, who are working in a restaurant, they have to give more than 7 hours in their job. Those students who work outsourcing also spend much time, like more than 7 hours. In addition to working time, students lost considerable time in travelling. A student does not get seven or more hours of free time daily. Students' academic activities are severely affected by spending 7 hours daily behind a part-time job. Around 23% spend 3-5 hours in job. This student is mainly doing one or two tuitions. Students do other part-time jobs such as photography, outsourcing, software-based work, small business-like t-shirt design. It is the perfect time for students to do a part-time job. 16% of students

spend in their part-time job less than 3 hours. This student is mainly doing one tuition, and travel time is also wasted. 4% of students spend in their part-time job 5-7 hours. At this time, students do one or more tuition. They do other part-time jobs like outsourcing, photography, marketing, small business. Above all, 3-5 hours is the perfect time for any student to do a part-time job; otherwise, their time will be wasted and hampered their academic activities and other activities.

➤ Transportation System

Figure 5: Transportation System



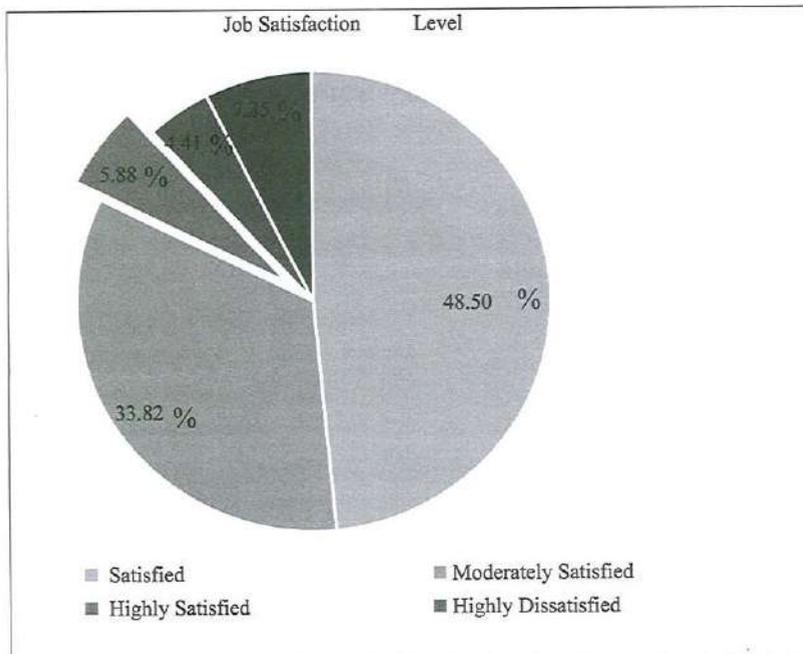
(Source: Prepared by Authors, 2019)

The bar chart shows students transportation mode during the part-time job. Around 24 students use an easy bike to go to the working area as a part-time job. The easy bike is a widespread transport in Rajshahi city, and it is available in almost all places. Travelling cost on an easy bike is much lower than auto-rickshaw. Easy bike wastes less time because it is available anywhere. So, most of the students use the easy bike. Seventeen students use auto-rickshaws to go to their working destination. Students use auto-rickshaws in areas where easy bike commutes less often or not at all. Travelling cost in auto-rickshaw is much high than easy bike or other transport modes without a bicycle. The good side of auto-rickshaw is that a student can go anywhere or part-time job location in a short amount of time and waste less time. 13 students walk to go to their working

destination from our survey. For walking, it does not waste any transportation cost. Around ten students use a bicycle. A bicycle is the best transportation medium for any student. Students can go quickly anywhere or working destinations by bicycle. There is no travel cost and time is not wasted by using bicycles. Above all, students should use the bicycle considering all aspects.

➤ Job Satisfaction

Figure 6: Income Satisfaction



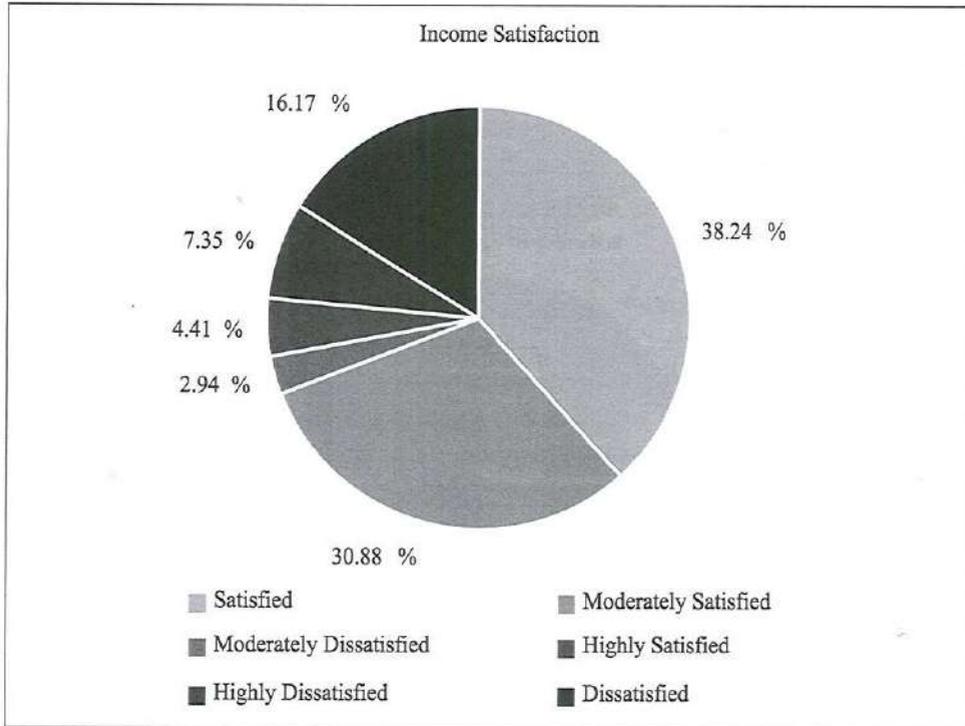
(Source: Prepared by Authors, 2019)

The pie chart talks about job satisfaction. The survey shows that 50% of students are satisfied with their jobs. Most of the students prefer tuition as a part-time job. They feel comfortable intuition, and it also develops themselves as well as clear the concepts. That could be the reason behind the satisfaction of tuition. Many of them does photography, radio jockey, event management. The students doing these jobs are satisfied and do not have any complaints about the work. They do the job frankly and heartily. They are pleased doing these kinds of jobs as their part-time jobs. 34% of students are moderately satisfied. This student is doing the job with some doubts. They feel the facilities could be much better. 6% of students are highly satisfied and do not complain about their part-time job.

4.41% are highly dissatisfied. They think they cannot work in the sectors they want to work in or the places they feel comfortable working. It is because of scopes in the city of Rajshahi. They have to obey the jobs they currently do. They are not involved in having any kind of feeling. So, they are highly dissatisfied.

➤ Income Satisfaction

Figure7: Income Satisfaction



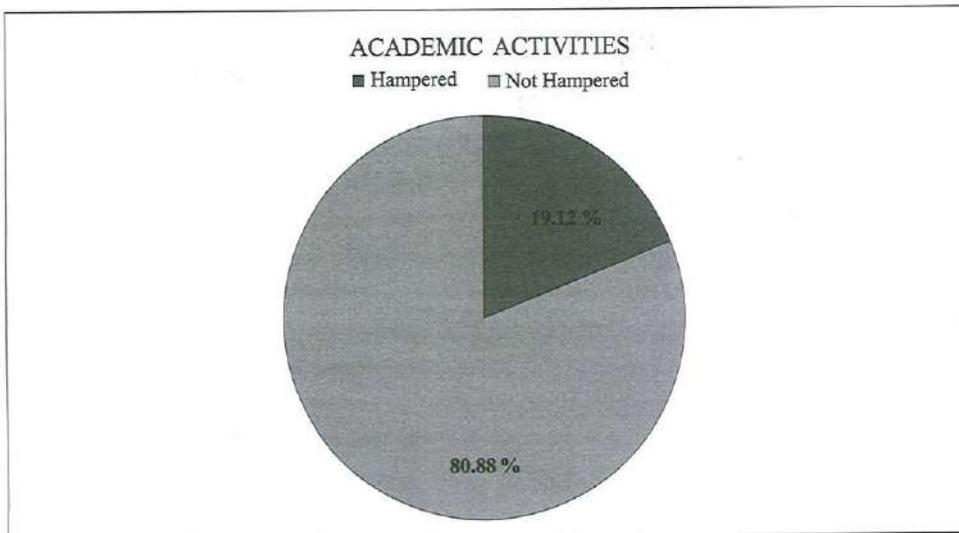
(Source: Prepared by Authors, 2019)

Income satisfaction is discussed in the following pie chart. The survey found that 38.24% students are satisfied, 30.88% moderately dissatisfied, 2.94 % moderately dissatisfied, 4.415 highly satisfied, 7.35%highly dissatisfied, and 16.17% dissatisfied. It is found that 38.24% of students are satisfied, which is the highest rate rather than others. Most of the students are satisfied with their income. One of the reasons may be that the quality of life in Rajshahi is comparatively available for which the salaries are sufficient for them. 4.41 % of students have no complaints about their salary. They are satisfied. Moderately

satisfied students think the salary they get is enough. However, the amount maybe a bit higher. 16.17% of students are highly dissatisfied. They think they deserve a more reasonable salary. They get minimal salary compared to the amount they work, which is frustrating. 7.35% of students are highly dissatisfied with their income. They feel that they are not being appropriately evaluated in Rajshahi compared to other cities. At the same time, the amount of salaries in Rajshahi is much lower than in Dhaka. Overall analysis shows an optimistic view. It is possible to earn roughly an amount of money by keeping in line with lifestyles.

➤ Academic Activities

Figure 8: Academic Activities

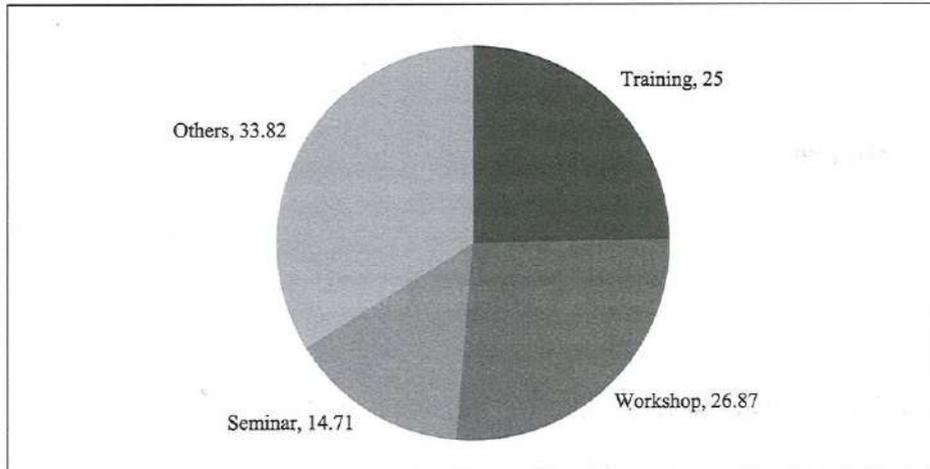


(Source: Prepared by Authors, 2019)

The survey reveals that most of the students are involved in tutorship, and the rest do other part-time jobs or, in some cases, more, which is about one-third of their time. It does not give them enough time for academic activities. 19.12% of student's daily activities are hampered due to part-time jobs. On the other hand, 81% of students feel that after part-time work, they still have enough time for their academic activities. In this case, they divide the task into shifts to not put too much pressure on them in a day which will disrupt their academic activities. On most public holidays, they do their shift works. The 81% of students part-time job duration is less than others. They handle these issues smartly.

➤ Developing Personal Skill

Figure 9: Factors of Developing Personal Skill



(Source: Prepared by Authors, 2019)

This pie chart outlines some of the factors that they think will help students increase their skills. The factors mentioned here are training, workshop, seminar and others. The survey provides some important information where their wishes and plans inform their views. 25% of students are interested in training. Because they think there is a chance to learn hands-on through training or the education is incomplete without training. It increases their knowledge.

On the other hand, 27% of students are interested in the workshops. A workshop is a period of discussion or practical work on a particular subject in which a group of people share their knowledge or experience; 27% of students prefer the workshop most. The seminar has the function of bringing together small groups for a recurring meeting, focusing each time. A seminar is one kind of formal presentation by one or more experts. 14% of students are eager to attend the seminar. Students think that seminar is not as fruitful as a workshop or training, so the percentage of the seminar is lower than others. 34% of students show their interest in other sectors.

➤ Problem Analysis

In the research survey, there were 59% male and 41% female. From the table, it has been seen that the safety problem for males is 15%, but it is 72% for females. Females are facing more safety problems because of the authority not

Students	Gender	Problems	Percentage (%)
	Male (59%)	Safety Issue	15
		Time	65
		Working Behavior	47.5
		Standard Income	44
		Others	33
	Female (41%)	Safety Issue	72
		Time	59
		Working Behavior	29
		Standard Income	38
Others		22	

Male Female Facing Problems (Source: Prepared by Authors, 2019)

doing the proper inspection. That is why the crime rate increases, and women are not feeling safe in this environment—65% of males face time problems, and 59% of females face the same problem. Time problem is mainly describing the period students spent in their job. Time is the main problem for both types of students. Because they think they can earn more from the time, they are spending in the workplace. Around 48% of males face working behaviour problems, and 29% of females also face the same problem. Thus, the behaviour with the students in their working place is not well. The guardians of students they tuition and owners of shops or restaurants where they are working do not give enough respect to the students.

Mainly, the owners or guardians are taking benefit of most cases. Moreover, they are behaving rudely in most cases. 44% facing problem of standard income and 38% female also facing this problem. Students are not getting enough money from their working place. They do not pay the money the students deserve and also delay in paying them. 33% male and 22% female students face other problems like transportation or fear of working late nights. This table is a complete summary of problems the students face while working in Metropolitan city Rajshahi.

From the data analysis, there found some significant findings.

- Tuition is a trendy part-time job. Most of the students prefer tuition as their main priority of part-time jobs. Among all the part-time jobs, the tuition rate is higher, and the income level is satisfactory. Through tuition, they can teach the students simultaneously, thereby developing themselves and their knowledge. Most consider tuition to be a reputable

part-time job. The money earned through tuition is substantial, and the income seems satisfactory. It is hard to find people who are not satisfied with the tuition. Tuition is very popular in areas like Rajshahi. Students from different varsities work part-time and are satisfied with tuition. Those who use tuition are mainly used as rickshaw or auto mode.

- Most people like to work part-time jobs for 3 to 4 hours if available in Rajshahi. In most cases, because students work part-time, they usually do not want to suffer in their studies. They work in all areas where they can make more money in little time. However, they have to work for a minimum of three to four hours. In some cases, more work has to be done, which often impacts their daily lives. Except for a few students, most who work part-time do not impact their academic career. That is a message of hope. However, for those who work part-time for longer, the academic career can be seen to have that effect. The length of time spent in employment is essential due to its effect on a student's academic performance.
- In most cases, students do part-time jobs for themselves, some to gain experience, some to support extra income, some to support the family. However, more students are working part-time to gain experience in everything. They think this will be a big help to their corporate life, helping them grow as an entrepreneur in the future. What is even more prominent is that many people work part-time jobs to cover their own expenses. A significant part of students is doing these types of jobs for earning money. Some do these jobs to do they support their family. They have to work hard and do a considerable expense to do so. For this, some of them feel their study is hampered. However, it is a duty for their family.
- There is a continuing debate over whether combining full-time study and part-time employment is beneficial or detrimental to the individual. To explore this issue, participants were presented with a range of consequences experienced while working part-time that participants in previous studies had identified and asked to identify those they had experienced. The findings are interesting, as they indicate that individuals in this study who held a part-time job experienced a more significant number of 'positive' effects derived from that employment. These results would seem to agree with much of the existing literature in which similar findings were apparent. Therefore, the results also indicate that part-time employment negatively affects some aspects of academic life, although to a lesser degree. However, it does raise the somewhat contentious issue of

the extent to which students need to engage in leisure activities while at university.

Recommendation and Conclusion

A part-time job is helpful for students, but it has some drawbacks also. Because of a part-time job, students pay less attention, decline students' grades, and have less attendance in class. As a result, student breaks out from their primary goal. All these problems can be solved if students and parents get little conscious about this. It is necessary to recommend some facts about the situation:

- This paper can also help the government and other organisations to increase job opportunities. It can also retain standard income.
- This can introduce others with shifting work facilities among the students and the companies as well as organisations.
- The safety issue is also a significant problem in part-time jobs. So, the authority can take necessary steps and increase safety during part-time jobs.
- By part-time jobs, a student can develop necessary skills which can help them in their professional career.

A part-time job is the first step of the entire stairs of life. It can be a turning point in one's career. Most of the undergraduate students are a significant part of part-time employment, which is very helpful for them. After completing graduation, all the students run after for a good job. Part-time employments help them to find a good job and prepare them qualified for the job. Before entering a professional career, it is really helpful for anyone to know about the pros and cons of the corporate sector. The main reason behind doing a part-time job in Rajshahi is mainly due to self-interest, financial support, self-development and seeking real-world job experiences for their future. The primary profession of students is tuition. Local students mostly choose a job like a salesman in malls and restaurants. Students mainly engage in part-time jobs for self-interest. 42% of students are not satisfied with their income. 58% of students spend their significant time in their job. 20% students' academic career is hampered. About 40% students prefer 2-4 hours for their job. Around 56% of students demand their working environment as good. Seventy-two per cent of female students facing safety problems. A complementary analysis shows that the combination of working and studying does not have any significant effect on all the students. So, part-time jobs can be a great decision with a great experience with the help of the proper supervision, guidance and knowledge of time management.

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Rapid Urbanisation and the Question to Food Security: A Case Study of Rajshahi City

Tahmina Khatun^{*}
Monira Parvin Kona^{**}
Md. Abu Bokar Siddique^{***}
Md. Selim Reza^{****}

Abstract

As Bangladesh's administrative divisional unit and growth centre, Rajshahi city has experienced rapid urban expansion and infrastructural development. Every year about 0.46% of total agricultural land is lost in the Rajshahi district. It caused a decline in agricultural production, which may be treated as an indicator of an increasing threat to the long-run sustainable livelihood security of the people of this area. The food security status depends on the average kilocalorie (k.cal) per day consumed by all household members. This paper examines the pace at which urbanisation and infrastructural development are consequent upon rapid land-use change and its influence on food security in some parts of the Rajshahi district. For this purpose, a survey was conducted in the Rajshahi district covering three Upazilas and the Rajshahi City Corporation (RCC) with 135 households. Spearman's Ranking Correlation Coefficient, Food Security Index and Binary Logistic Regression model, are employed to analyse the data. Spearman's Ranking Correlation Coefficient shows a direct negative

^{*} Assistant Professor, Dept. of Humanities, Rajshahi University of Engineering and Technology, Bangladesh. Email: tahmina16swapna@gmail.com

^{**} Lecturer, Dept. of Humanities, Rajshahi University of Engineering and Technology, Bangladesh. Email: mkonaeco@gmail.com

^{***} Associate Professor, Dept. of Humanities, Rajshahi University of Engineering and Technology, Bangladesh. Email: abshum_ruet@yahoo.com

^{****} Associate Professor, Dept. of Humanities, Rajshahi University of Engineering and Technology, Bangladesh. Email: abshum_ruet@yahoo.com

correlation between urban extension and agricultural area contraction, but also the supervised classification of satellite imageries shows the rapid change of rural land use from 1977-2010. Descriptive analysis was carried out to describe the study area's socio-economic characteristics and determinants of food security. Using the recommended calorie required approach, this study revealed that 38.5% of the households were food secure, and 61.5% were food insecure. The shortfall/surplus index (P) showed that the food-secure households exceeded the calorie requirement by 30%, while the food insecure households fell short of the calorie requirements by 19%. Since the food security index value is 0 to 1, the mean value of FSI (0.39) indicates that households in the study are not food secure. Three factors are statistically significant: income of household head, household size, and farm size. The analysis found that change in land for urbanisation has a positive but insignificant impact on household food security status in the study area. Finally, the study area's major problems are the contraction of cropland by built-up area, increase in urban population, and infrastructural development. Addressing these problems, a new balance between urbanisation and the agricultural process is needed that must include both formal and informal planning in order to achieve the targets set by sustainable development goals (SDGs).

JEL Classification O15 · O18 · R12 · R14

Keywords Land-use Change · Food Security Index · Infrastructural Development · Urbanisation · Logistic Regression · Shortfall/Surplus Index · SDGs

Introduction

Urbanisation has become one of the greatest environmental challenges in the world today. Largely, urbanisation refers to the alteration of an agricultural economy to that of a manufacturing and service-oriented economy (Dewan et al., 2012). Globally, a strong trend of urbanisation has been observed since 1900 (Dewan et al., 2012). The world urban population rose from 13% (220 million) in 1900, to 29% (732 million) in 1950, and to 49% (3.2 billion) in 2005 (United Nations 2005). Gey van Oort (2008) showed that the urban area increases with time and gradually expands towards the rural area. According to United Nations, a year from 2009 to 2050, 1.86 billion more people will live in urban areas, and the level of urbanisation is expected to rise from 50 to 69%. Although urbanised land area comprises just 2% of the earth's surface, more than half of the world's population lives in urban areas (Deng et al., 2015).

Though, Bangladesh - a lower-middle-income country in South Asia - had 57.09 million urban populations in 2016. Although its urbanisation rate of 1.37 is lower than the rate of the lower-middle-income countries, the country is experiencing a fast pace of urbanisation. It is anticipated that by 2050, the country's share of the urban population will reach 56% (Roy et al., 2018). The process of urbanisation in Bangladesh is rapid and uneven. It is much more concentrated on the large cities of Bangladesh like Dhaka, Chittagong, Khulna and Rajshahi- account for over 60% of the urban population, up from 48% population in 1970. Most industrial activities and business services are concentrated in the largest cities (World Bank, 2015). The expanding urban populations of Bangladesh presents it with a considerable affordable housing challenge. To meet this challenge, the amount of developable urban land will require to expand by just over 7,000 km² or almost 45 percent considering constant urban population density between 2010 and 2050. (world bank, 2015). As the impact of urbanisation creates not only positive externalities through technological innovation and shared information, such as outstanding economic growth, increasing industrial production, but also generates negative externalities such as problems in public safety, health, social equality (Balet al., 2011; Wu et al., 2011). One of the major effects of urbanisation in developing countries is losing cultivable land due to infrastructural development.

Infrastructure is the heart of the financial and social advancement of an economy. There are two aspects of infrastructure, on the one hand, it boosts economic growth, offer mobility and social interaction, and on the other hand, it generates environmental pressure (Siddique & Mukherjee, 2017). The infrastructure built along with the expansion of cities occupies a large amount of land, which leads to a significant decrease in the cultivable land (Islam and Hasan, 2013). Thus, rapid urbanisation and infrastructural development can be treated as a growing threat to food security and the environment.

The concept of food security has evolved, and the world has taken a more comprehensive view of food and nutrition in recent years. At the World Summit of Food Security in 2009, the definition of food security was extended and specified by adding that the "four pillars of food security are availability, access, utilisation, and stability" and stated that "the nutritional dimension is integral to the concept" (Habiba et al., 2015). Each of these four critical facets of food security can be studied in the milieu of the urban environment. rustic and urban settings. Food stability alludes to access to food at all times with no danger of losing access due to sudden stuns. Though Bangladesh is a country with a population of 160 million, increasing at a rate of 1.3%, adding about 2 million

labour force with the existing 72 million every year, agriculture is still the single most significant contributor to GDP. It provides 45% of total national employment and more than 70% of rural employment (Noman A.N.K & Ali K.J, 2014). However, Bangladesh is still dependent on food imports, and it has been on the rise in recent years. The achievement in the case of food security is not satisfactory till now. To improve the situation, Bangladesh has taken SDGs where the second goal is to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture.

As an administrative divisional unit and growth centre of Bangladesh, Rajshahi city gets rapid urbanisation in the northern region of Bangladesh, influenced by various physical driving factors in an average of 8.58% annual urbanisation rate (Ashaduzzaman, 2017). The growth of the study area's population is 1.34% and meeting the demand of this large population will put enormous pressure on a food production system. The hasty growth rate of the population is responsible for the rapid expansion of infrastructures, which causes losses of agricultural land. Every year about 0.46% of total agricultural land is lost in the Rajshahi district (Islam, M. R., 2013). The resources required for agricultural production, such as land and water, are becoming meagre, which in turn hamper the food security of this region.

Literature review

Several pieces of research are done related to urbanisation, infrastructural development, and food security separately, especially in a developing country like Bangladesh, where rapid, haphazard, unplanned urbanisation is causing significant farmland loss. Yeh and Li (1999) examined the relationship between economic development and agricultural land loss in the Pearl River Delta, using Dongguan as a case study. They found that agricultural land loss has been much aggravated by land speculation due to the property boom in the Pearl River Delta induced by the property boom in Hong Kong in the early 1990s. It was also related to other economic factors, such as rural industrialisation, the rise of localism, influence from Hong Kong, transport improvement, and lack of land management and monitoring system. They suggested an urgent need to develop a sustainable land development strategy to protect the fertile agricultural land from further unnecessary losses, primarily from land speculation. Seto and Shepherd (2009) explained that urban land-use and land-cover changes significantly impact food production and climate. It is affected by the shape, size, and geometry of buildings and the differences in urban and rural gradients. Salan et al. (2018) have found a correlation between the two factors that land price increases with the

changing land use. As resources are limited, the land fulfils industrial, commercial, residential, and institutional needs. Alam (2018) revealed that speculating high profit from high land value encouraged developers and individual buyers to grab high productivity farmland, flood zones, lakes and canals. It results in the withering away of rivers, lakes, canals, ponds and ditches from megacity Dhaka which has many other adverse ecological, social and economic impacts. In the paper 'Agricultural land conversion in the sub-urban area: A case study of Rajshahi Metropolitan city, Halim et al. (2013) observed that the land conversion from agriculture to non-agriculture allied in recent time is more than the last time due to gradually increasing land demand in housing and relevant services which invite adverse impact on agricultural land as well as its dependent population. They suggest taking integrated land-use planning to offer better options for fulfilling land demand both of housing and agricultural sectors.

Siddique & Mukherjee (2017) showed a direct negative correlation between urban extension and agricultural area contraction and the supervised classification of satellite imageries showing a rapid change of rural land use from 1996-2016. There is no match between future population growth and future yield rate of crops, and the Markov Chain Model further predicts that the cropland will decrease from 62.77% to 42.90%, and the built-up area will increase from 31.86% to 54.63% of the total area from 2016 to 2056. Rai et al. (2017) found that high population growth, rapid urbanisation, and infrastructure development have been directly associated with changing land-use patterns.

Ira Matuschke (2009) explained the challenges of rapid urbanisation in developing countries and the impact of rapid urbanisation on four dimensions of food security: availability, stability, safety, and access to food worldwide. Using GIS, Matuschke (2009) constructed a food density map of the world to identify the future food security hotspots.

Naab et al. (2013) highlight the land use planning response to urbanisation and explain its influence on food (in) security within the context of urbanisation. It also provides vivid information on how different policies can be taken to meet food security crises. The findings of this research bear similarity to the "losses of agricultural land due to infrastructural development on Rajshahi District of Bangladesh" (Islam and Hasan, 2013). Using Remote Sensing and GIS techniques, Islam and Hasan (2013) found out the losses of agricultural land due to infrastructural development from 1977-2010. In doing so, they analysed change detection and predicted the future availability of agricultural land.

Dewan and Yamaguchi (2009), using GIS technique, satellite images, and socio-economic data between 1975 and 2003, found that substantial growth of

built-up areas in greater Dhaka resulted in a significant decrease in water bodies and cultivated areas land vegetation and wetlands. The urban land expansion has been primarily driven by elevation, population growth and economic development. Rapid urban expansion through filling low-lying areas and clearing vegetation resulted in many environmental impacts, including habitat quality. Acharya et al. (2002) studied the impact of urbanisation on sustainable agriculture in Malaysia. They discussed the changes in the economic structure of Malaysia due to urbanisation and its impact on natural resources—urban waste generation, air pollution, water pollution, land conversion and species extinction. David Satterthwaite et al. (2010) showed the relations between urban change, food demand and rural-urban linkages and introduced the concept of urban agriculture. Urban agriculture or urban farming is an act of cultivating, processing, and distributing food in or around a village, town, or city. Food security, nutrition, and income generation are key motivations for urban agriculture. Hossain and Noor (2016) focused on the significant challenges of climate change on agricultural development and food security issues in Bangladesh. They found that Climate change (especially in the case of precipitation and temperature) has a negative impact on crop production and all other sectors of agriculture, which may increase the risk of food security.

Food security is related to land use, nutrition, climate change, income, poverty and infrastructural development is linked with economic development and the environment. Hence, this study attempts to examine the pace at which urbanisation; infrastructural development is consequent upon rapid land-use change and its influence on food security in parts of the Rajshahi district.

Objectives of the study

The key objectives of the present study are:

1. To assess the rate of urbanisation in the selected parts of Rajshahi district,
2. To examine the extent to which rural land use is affected by urban extension and infrastructural development,
3. To investigate the rate of decrease of agricultural land and
4. To estimate the present food security of the study area

Source of Data

The research is based on both primary and secondary data. Primary data has been collected using a random sampling method from the households of Rajshahi city. Using a structured questionnaire, 135 surveys were conducted among the residents of the study area to identify the food security condition of the people.

Secondary data has obtained from the Bangladesh Bureau of Statistics, Economic Census – District Report, Rajshahi, from the year 1981-2011 to identify the rate of urbanisation. The increasing rate of urban population and the rise of the number of municipalities are calculated between 1971-2011. Land use data from 2000-2011 of Rajshahi district is followed to encounter the change of net cropped area and non-agricultural land use with the increasing urban population.

Methodology

Spearman's ranking Correlation Coefficient is calculated to understand the correlation among net cropped area, urban expansion, and urban population (Siddique & Mukherjee, 2017). Since it is a technique that can be used to summarise the strength and direction (negative or positive) of a relationship between two variables, the result of this coefficient will always be between 1 and minus 1 (Gupta and Gupta, 2010).

$$r = 1 - 6 \frac{\sum d_i^2}{n^3 - n} \quad (1)$$

Where, r = Spearman rank correlation

d_i = the difference between the ranks of corresponding variables

n = number of observations

For measuring the food security status of a household, we have analysed it in two stages. First, we constructed a food security index (Z) and determined each household's food security status based on the daily calorie intake method. Though there are variations in the definition of food security; Food security was defined by the World Food Summit (WFS) in 1974 as: "availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" (United Nations 1975). The most recent careful redefinition of food security is that negotiated in international consultation leading to the WFS in November 1996. According to WFS (1996) definition, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". This definition addresses four critical food supplies and security components: availability, stability, access, and utilisation (Schmidhuber and Tubiello 2007). However, at the World Summit of Food Security in 2009, this definition was reconfirmed, and the concept was extended and specified by adding that the "four pillars of food security are availability, access, utilisation, and stability" and stated that "the nutritional dimension is integral to the concept" (Habiba et al., 2015).

The first measurement is related to the general availability of inadequate food amount. Both production and supply systems of food are distinctive in economic or climatic crises or cyclical events such as agricultural seasons. Food safety is connected to the quality of food and the final dimension, access to food, is related to the assets that people or their families possess to obtain food necessitated for a healthy living (FAO, 2008:1). These four critical facets of food security can be studied in the milieu of the urban environment and urban setting.

Moreover, second, we used the Logit regression model to estimate the food security status of the households (Babatunde et al., 2007). The average daily calorie requirement for a moderately active adult is 2850 kcal, and a safe minimum daily intake should not fall below 80% of the above calorie requirement. This food security line is used in this study after converting all household members into adult equivalent units (Babatunde et al., 2007; Dev et al., 2017). The formula of Adult equivalent is:

$$ADEQ = [(A+0.5C)]^{0.9} \quad (2)$$

Where ADEQ = Adult equivalent unit

A = Number of adults above the age of 15 years

C = Number of children below the age of 15 years in a household

If per capita Calorie intake is at least 2280 kcal, the household will be regarded as food secure, and those below 2280 kcal will be regarded as food insecure households (Dev et al., 2017). The formula of the food security index is as follows,

$$Z_i = \frac{Y_i}{R} \quad (3)$$

Where Z_i = Food security status of the i th household. When $Z_i \geq 1$, the i th household will be food secure ($Y_i \geq R$) and when $Z_i < 1$, the i th household will be food insecure ($Y_i < R$)

Y_i = Daily per capita calorie intake of i th household

R = Recommended per capita daily calorie intake (2280 kcal)

Based on this Z_i , other related measures are calculated. They are the headcount ratio, shortfall/surplus index and the food insecurity gap.

The Headcount Ratio (HCR) Index

The headcount ratio measures the percentage of the population of households that are food secure or insecure.

$$HCR = \frac{M}{N} \quad (4)$$

Where HCR = Headcount ratio

M = Total number of food-insecure households

N = The number of households in the sample

The Shortfall/Surplus index

The shortfall or surplus index (P) measures the extent to which the households are food insecure.

$$P = \frac{1}{M} \sum_{i=1}^m G_i \quad (5)$$

Where M = Total number of food-insecure households

G_i = Per capita calorie intake deficiency for an i th household where $G_i = Y_i - R/R$ [Y_i is the actual calorie intake by household and R is the recommended intake.

Based on the household food security status, the Logit model is estimated to find the effects of the factors on food security at the household level. The implicit form of the model is expressed as:

$$Z_i = \beta X_i + U_i \quad (6)$$

$$= \beta_1 + \beta_2 X_1 + \beta_3 X_2 + \beta_4 X_3 + \beta_5 X_4 + \beta_6 X_5 + \beta_7 X_6 + \beta_8 X_7 + \beta_9 X_8 + U_i$$

Where Z_i = Food security status of i th household

X_i = Vector of the explanatory variables

U_i = the error terms

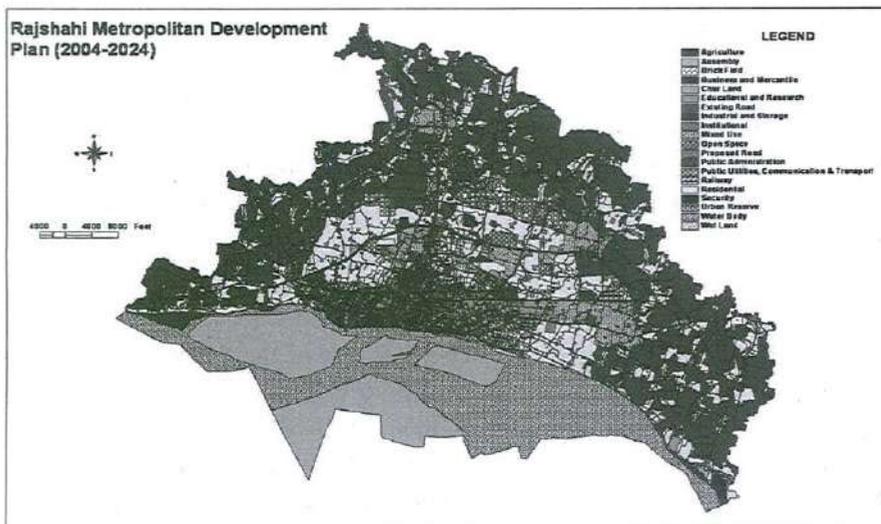
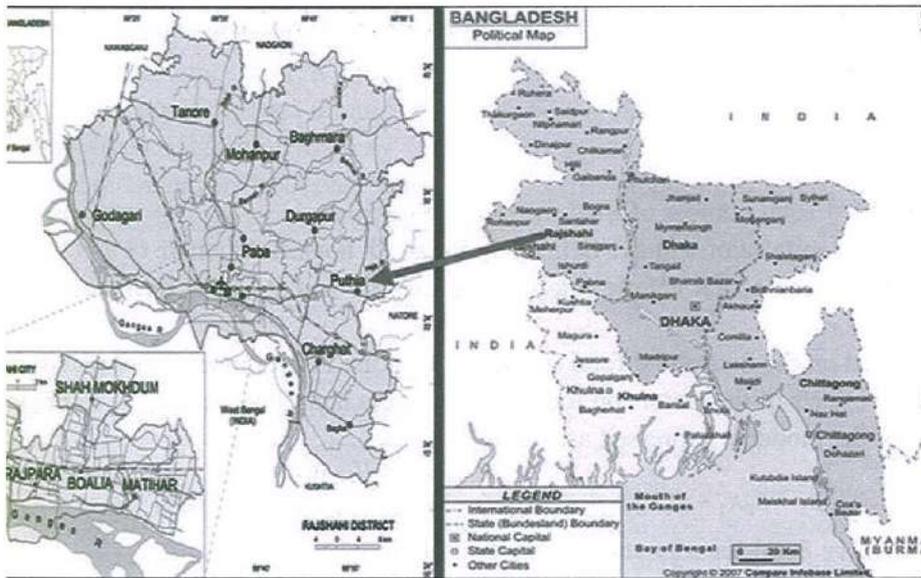
β = Vector of the parameter estimates

The dependent variable and the explanatory variables that we include in the model are Food Security (Z_i), Household Income (X_1), Farm Size (X_2), age of the household head (X_3), education of household head (X_4), Household size (X_5), Gender of household head (X_6), Period of road construction (X_7) and Change of land for urbanisation (X_8).

Study Area

Rajshahi, the capital city of North Bengal, is one of the fastest-growing cities of Bangladesh. The city today has grown into a commercial, educational, cultural and administrative centre of North Bengal. Rajshahi City Corporation area is 95.56 sq. km, located between 24 20' and 24 24' north latitudes and between 88 32' and 88 40' east longitudes. Paba Upazila bounds it on all sides. RCC lay on the

bank of Padma River, a major river of Bangladesh. It has a tropical monsoon climate and dries moderately. The average height from sea level is 18 m. It is surrounded by almost plain land and consists of many wetlands and agricultural land, characterised by many scattered informal settlements. Most of the significant roads surrounding open lands are developed and turned into non-built-up to the built-up area following the service generating areas. The population of



Source: Rajshahi Master Plan, 2004

this area was 388,811 in 2001, 449,756 in 2011 and 743,000 in 2016. It signals that the population of the city was slowly increased, but the built-up area increased rapidly. The RCC suburbs are also experiencing rapid urbanisation, leading to satellite towns or municipalities around the city. Currently, the urban population in Bangladesh is around 35% and is projected to reach 40% in 2025, of which 5% will be in Rajshahi City Corporation (Ashaduzzaman, 2017).

The research considered some selected areas of Rajshahi City Corporation and its surrounding areas known as pre-urban areas, which will be included within the city corporation area soon. Areas under review to look into urbanisation effect in altering the rural land use with a possible threat to food security, we have chosen Meherchandi (Budhpara), Padma Abashik area, hyampur Dashmari, City bypass area from RCC and Katakhalipaurashava, Narikel Baria from Poba and Naohata as the surrounding area of Rajshahi City Corporation. All these areas have a recent history of rapid urbanisation and a decrease in cultivated areas. The study area was selected purposively, and the respondents of this research work were selected randomly.

Discussions of Results

Urbanisation and its effect on agriculture: Agriculture meets the demands of the rapidly growing urban population including (Satterthwaite et al., 2010). Urbanisation presents both opportunities and challenges for the farmers and farm-supporting sectors on the urban fringe (Wu et al., 2011). By affecting caloric requirements, food availability and female labour status, it influences the structure of food consumption and food production (Regmi and Dyck, 2001). Rapid urbanisation has also impacted the vagaries of food sufficiency and crisis and its multiplier effects on the escalating rate of poverty and insurgency in the cities (Ozden and Enwere, 2012). One of the significant adverse effects of urbanisation for developing countries is losing cultivated lands (Deng et al., 2009; Lu et al., 2011). At the same time, others claim that the infrastructural development and the expansion of cities occupy a large amount of land, which leads to a decrease in the cultivable land (Islam and Hasan, 2013; Deng et al., 2015). Agricultural land loss occurs around smaller cities more than bigger cities (Pandey and Seto, 2015). Besides, agricultural land shifts to non-agricultural uses for the rapid urbanisation (Rosenberger et al. 2002; Berry, 1978).

Note: PSA = Paurashava area, OUA = other urban areas, CCA = City Corporation area & SMA = Statistical Metropolitan area

Source: Authors' calculation based on Bangladesh Population & Housing Census 2011, Zila Report: Rajshahi.

Table 1: Urbanisation scenario in Rajshahi district

Thana/Upazila	Percentage of Urban population to Total population		Area in sq. km		Urban Status		No. of Municipality	Net Cropped areas in acres
	2001	2011	2001	2011	2001	2011		
Bagha	2.61	5.17	10.99	21.10	PSA	PSA	2	25054
Baghmara	4.11	4.47	26.58	26.58	PSA+OUA	PSA+OUA	2	66099
Charghat	4.13	4.49	18.73	18.72	PSA	PSA	1	26578
Durgapur	0.81	3.29	5.69	26.85	OUA	PSA+OUA	1	29886
Godagari	4.46	7.16	17.43	36.80	PSA+OUA	PSA+OUA	2	70273
Mohanpur	1.38	3.49	9.25	23.91	OUA	PSA+OUA	1	26550
Poba	31.09	10.03	280.42	49.59	SMA	PSA	2	38731
Puthia	1.54	3.01	7.83	16.83	OUA	PSA+OUA	1	30755
Rajpara Thana	14.35	16.07	25.19	24.86	CCA	CCA		
Shah Makhdum Thana	2.88	3.14	12.87	17.77	CCA	CCA		5300
Boalia Thana	22.72	25.88	38.56	36.66	CCA	CCA		
Motihar Thana	6.13	7.28	20.56	17.89	CCA	CCA		
Tanore	3.79	6.25	27.97	58.98	PSA+OUA	PSA	2	52710
Total			511.07	376.54				

Note: PSA = Paurashava area, OUA = other urban areas, CCA = City Corporation area & SMA = Statistical Metropolitan area
Source: Authors' calculation based on Bangladesh Population & Housing Census 2011, Zila Report: Rajshahi.

Table 1 shows that the total urbanisation scenario of Rajshahi district in the years 2001 and 2011. Within ten years, there is an exponential rise in urban population and municipalities in all the areas. Our study area is limited to Rajshahi City Corporation (RCC) and a tiny part of Poba, Mohanpur and Charghat Upazilas, close to Rajshahi City Corporation. With the extension of RCC, these areas will face the impact of urbanisation to a greater extent. The study areas had little experience of growth in urban population up to 2001, but in 2011, the urban population increased to a considerable height, which signals the pace of urbanisation. Before 1991, these areas were very rural. Before 2001, there was no municipality in Poba, where at the end of 2011, the number of municipalities was two. Thus 175 sq. km. of its area was urbanised with the development of municipalities. The greatest extent of urbanisation in the study area took place from 2001 to 2011. Where non-agricultural land use increases, such as building construction, industry, roads, and infrastructure, urbanisation is vital to the loss of agricultural land (Siddique and Mukherjee, 2017).

Table 2: Calculation of Spearman's Ranking Correlation Coefficient

Block	Urban area in Sq. Km.	Rank	Net Cropped area in acres	Rank	Difference of Rank (d)	d^2
Charghat	18.72	4	26578	2	2	4
Mohanpur	23.91	3	26550	3	0	0
Poba	49.59	2	38731	1	1	1
Rajshahi City Corporation	97.18	1	5300	4	3	9

$$\sum d^2 = 14$$

Data Source: Bangladesh Population & Housing Census 2011, Zila Report: Rajshahi. (Computed by the Author)

$$\begin{aligned} \text{Spearman's Ranking Correlation Coefficient: } r &= 1 - 6 \frac{\sum d^2}{n^3 - n} \quad (1) \\ &= 1 - 1.4 \\ &= -0.4 \end{aligned}$$

Spearman's Rank Correlation Coefficient can be used as a method to compute the extent of urbanisation as a responsible factor in transforming rural land-use patterns (Siddique and Mukherjee, 2017).

Data Source: Bangladesh Population & Housing Census 2011, Zila Report: Rajshahi. (Computed by the Author)

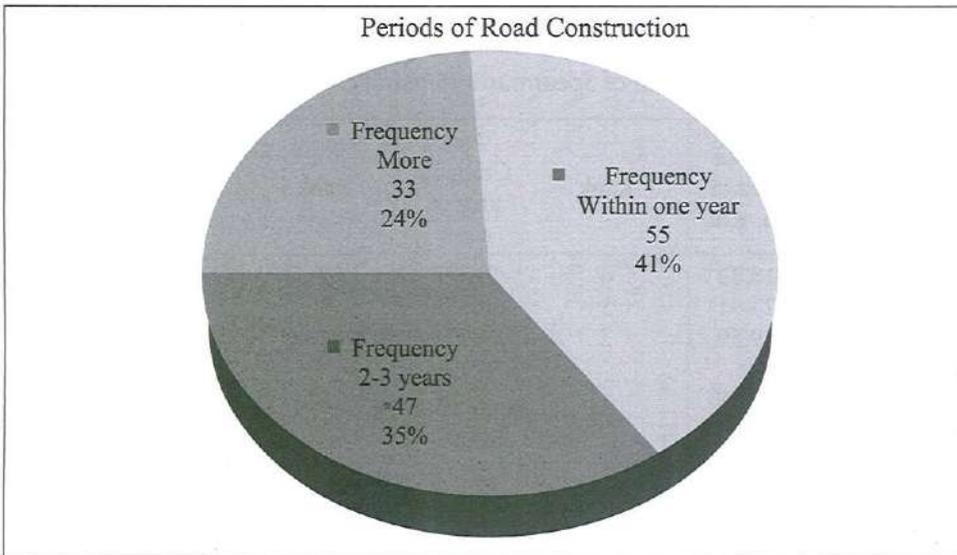
Spearman's Ranking Correlation Coefficient: $r = 1 -$

The result shows a strong negative relationship between the growth of the urban area and the net cropped area (Table 2).

Infrastructural Development in the Study Area

Infrastructural development and agricultural land losses are interrelated in a land-hungry country like Bangladesh. Due to the population growth, the demand for infrastructure use is increasing, and agricultural land is decreasing gradually (Islam & Hasan, 2013). According to the field survey, the average period of road construction of Poba, Mohanpur and Charghat Upazilas was 1.84 years, whereas construction within one year was 40.2%, between 2-3 years was 34.8%, and 25% was constructed more than three years ago.

Figure 1: Pie chart for the time of construction of roads in the study area



Most of the roads are built within one year, and many new projects are on the way. Within the city area, it may not create any problem for food production or food supply, but for the pre-urban areas like Katakhalī Paurashava, Narikelbaria, it will hamper the production of food like rice, wheat and others since two or three years ago these lands were used fully for agricultural purposes. Besides, the remaining landowners of these areas are becoming more interested in orchards instead of rice and wheat. On the other hand, agricultural lands beside roads or highways are famous for non-agricultural uses, reducing total cultivable land and food production.

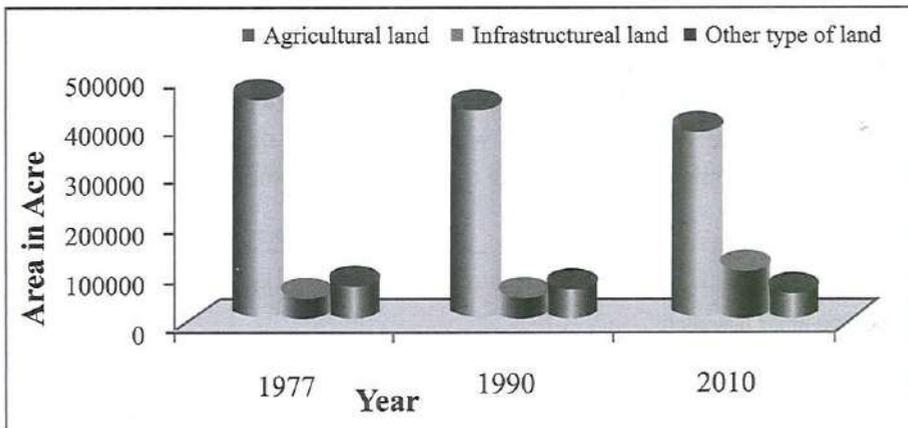
Table 3: Land use change of Rajshahi District During 1977 to 2010

Land use pattern	Area in 1977 (in ha)	Area in 1990 (in ha)	Area in 2010 (in ha)	Changes area 1977-1990 (in ha)	Changes in % 1977-1990	Changes area 1990-2010 (in ha)	Changes in % (1990-2010)	Changes area 1977-2010 (in ha)	Changes in % (1977-2010)
Agricultural	186056.74	177564.6	159913.43	8492.10	-4.65	17553.58	-9.95	26143.25	-14.05
Infrastructural	16161.36	2601723	47617.58	9859.98	+60.98	21600.34	+83.02	31455.27	+194.63
Orchard	3781.95	3438.43	4499.55	343.34	-9.08	1061.13	+30.86	717.76	+18.97
Fallow land	8666.05	6613.66	4482.09	2052.40	-23.68	2131.58	-32.22	4183.98	-48.27
Water bodies	10235.95	10410.94	8428.13	134.61	-1.32	1982.81	-19.05	1807.81	-17.66
Char land	2071.20	4393.17	5377.25	2321.97	+112.1	984.07	+22.40	2901.19	+140.79
River area	6425.07	4951.13	3055.72	1392.97	-22.94	3369.34	-52.44	3369.34	-52.44

Source: Landsat MSS-1977, TM-1990 and TM-2010 image analysis

Table 3 shows that the agricultural land is converting into another type of land use, especially for the infrastructural land (Islam & Hasan, 2013) and orchard. From 1977 to 2010, about 14.05% of agricultural land decreased, and infrastructural land increased by 194.43%.

Figure 2: Losses of Agricultural Land for Infrastructural Development



This bar diagram shows the losses of agricultural land due to infrastructural development. The agricultural lands of these areas have been decreasing, and the infrastructural area is increasing.

Socio-economic description of households: Among 135 respondents in the study area, there was no female head at the household level against 73.3% male

household heads and the age of most of the household heads is between 18-60 years.

Figure 3: Bar diagram of the age group of household head

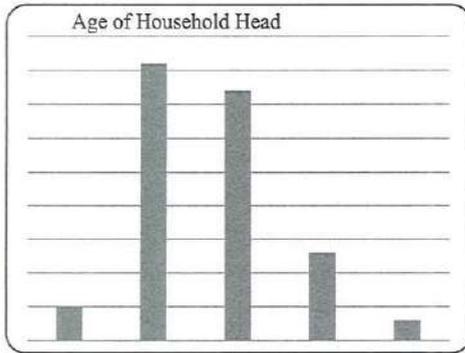
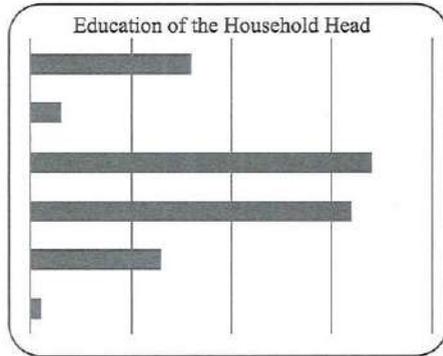


Figure 4: Level of Education of the household



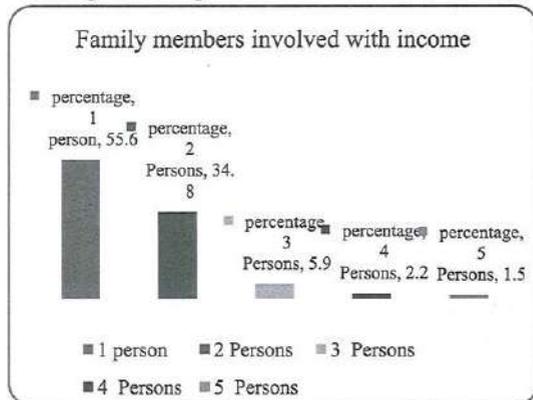
The education level in this area is low, which limits the better jobs. The household heads having an education are primary education 31.5%, secondary education 35.2%, vocational education 2.8%, higher education 14.8% and 13% of them can only sign their name. About 3% of the household head have no education at all.

Labour supply depends on the household size, which has tremendous implications on food security. If the number of earning or workable members is larger than the number of dependent people, then earning of the family will be more and agricultural production will increase. The average household size was 4.38, and almost 80.7% of households have members between 4 and 6 people. The average age of the household head was 40.68 years that means the majority (72.6%) of the population were young and belonged to the active age group.

Table 4: Size of the household

Household Size	Frequency	Percentage
1-3	23	17
4-6	109	80.7
>6	03	2.2

Fig. 5: Earning members of the households

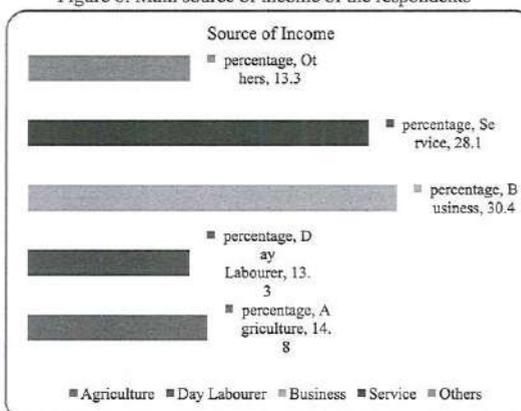


More than half of the families, only one member is involved in income as single families are more in urban areas. The percentage of two earning members is 34.8%, while three members earn 5.9%. Though the average farm size was 0.53 acres, 45.3% of people still had no agricultural land due to urbanisation. It is found that 91.4% of farmers cultivated between .00 and 2.00 acres of land, and only 5.8% cultivated more than 2.5 acres.

Table 5: Agricultural land after urbanisation

Area	Frequency	Percentage
00-0.50 acres	97	69.8
0.51-1.00 acres	19	13.7
1.01-1.50 acres	7	5.0
1.51-2.00 acres	4	2.9
2.51-3.00 acres	3	2.2
3.51-4.00 acres	2	1.4
>4.00 acres	3	2.2

Figure 6: Main source of income of the respondents



The people in the study area mainly earn their income from agriculture, wage labour, business, service, and other sources like construction labour, truck, rickshaw, auto-rickshaw, van puller. Households were classified into five categories based on how they obtain their living, namely, agriculture, day labourer, business, service and others. Still, 18.8% of household members derived their livelihood by farming though they lost or sold their agricultural land or used it for non-agricultural purposes after urbanisation. About 30.4% of the households are engaged in petty business. The number of people who have no land to grow agricultural products working as day labourers to support their families was 13.3% in the study area. Urbanisation increased the opportunity for paid work and the development of other infrastructure. 28.1% of the respondent was engaged in service, and 13.3% of households were in other sources.

Present Food Security Status in the Study Areas

Bangladesh is one of South Asia's emerging economies and has been growing consistently over the last three decades, where one of the significant contributors in the agricultural sector. Though Bangladesh is a country with a population of 160 million, increasing at a rate of 1.3%, adding about 2 million labour force with the existing 72 million every year, agriculture is still the single most significant

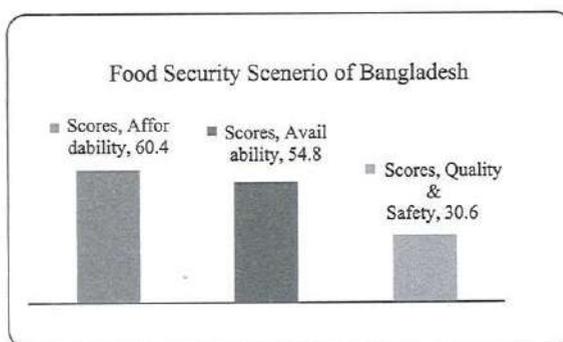
contributor to GDP (Noman and Ali, 2014). It provides 45% of total national employment and more than 70% of rural employment. However, Bangladesh is still dependent on food imports, and it has been increasing in recent years. According to the Global Food Security Index, 2019, the position of achieving food security of Bangladesh is the lowest in South Asian Countries. In the case of two core pillars of the index – food affordability and availability – Bangladesh did well with scores of 60.4 and 54.8, respectively. In the last pillars of the index – quality and safety of food, Bangladesh's performance is moderate (30.6) but needs improvement (Ali M, 2019).

Table 6: Ranking of South Asian Countries in food security

Country	Score (GFSI)	Rank
Sri Lanka	60.8	66 th
India	58.9	72 nd
Pakistan	56.8	78 th
Nepal	56.4	79 th
Bangladesh	53.2	83 rd

Source: Global Food Security Index, 2019

Figure 7: Condition of food security in Bangladesh, 2019



Based on the recommended daily calorie intake (R) of 2250 kcal, it was observed that 38.5% of the households were food secure, and 61.5% of the households were food insecure. Table 7 represents the summary statistics and food security indices among the sample households.

Only 39% of the study area population met the recommended calorie intake of 2250 kcal per day, whereas 61% could not. On the other hand, the shortfall/surplus index (P) measures the extent of deviation from the food security line (Babatunde et al., 2007), indicate that the secure food households exceeded the calorie requirement by 30%, while the food insecure households feel short of the calorie requirements by 19%.

Regression results in the food security status of the households in the study area

The estimation results of the logistic regression analysis are presented in Table 8. From the table, it is observed that three variables out of six included in the

Table 7: Summary statistics of food security indices for the study area

Variables	Mean		
Food Security Indices	Food Secure	Food Insecure	All
Recommended per capita daily calorie intake(R) is 2250 kilocalorie			
Percentage of household	38.5	61.5	100
Number of households	52	83	135
Age of household head	38.02	42.82	80.84
Household size (Adult equivalent)	2.96	4.04	7.00
Household monthly income	BDT 28,799	BDT 20,688	BDT 23,753
Farm size	0.582 acres	0.499 acres	0.539 acres
Food security index			
Mean			0.39
Std. Deviation			0.49
Per capita daily kilocalorie availability	2927.282	1828.326	2254.122
Shortfall/Surplus index(P)	0.30	0.19	
Head count ratio(H)	0.39	0.61	

regression model are statistically significant, which are household size, income of the household and the agricultural farm size. However, age of household head, education of the household head and number of family members involved in income are not statistically significant. This result mainly explains the variations of present food security status in the Rajshahi district of Bangladesh.

Table 8: Regression estimates for determinants of food security status of households

Variables	Coefficient	Std. Error	p> z
Age of household head	.0340801	.0610132	0.567
Household size	-4.62165	1.165843	0.000***
Number of working members	-.0521318	.8574834	0.952
Education of household head	.0168017	.0714723	0.814
Household income	.002487	.0008912	0.005***
Farm size	.8439685	.482866	0.080*
Period of Road construction	-.2510746	.4509079	0.578
Change in land for urbanization	.5783712	.8327249	0.487
Constant	12.16389	3.672547	0.001***

Source: computed from the field survey data, 2019; Food security status

*** indicates significant at 1% level,

** indicates significant at 5% level & * indicates significant at 10% level.

To know the impact of the variables with one unit change, we have shown the marginal analysis of the variables, which are shown in table 9 and explained below the table.

Table 9: Marginal Analysis

Variables	dy/dx	Std. error	p> z
Age of household head	.008511	.01526	0.577
Household size	-1.154194	.29063	0.000***
Number of working members	-.0130192	.21418	0.952
Education of household head	.004196	.01786	0.814
Household income	.0006211	.00022	0.004***
Farm size	.2107696	.12089	0.081*
Year of Road construction	-.0627025	.11255	0.577
Change in land for urbanization	.1444403	.20824	0.488

Source: computed from the field survey data, 2019; Food security status
 *** indicates significant at 1% level, ** indicates significant at 5% level &
 * indicates significant at 10% level.

Table 9 represents the impact of the variables on being food secured or not food secured. From the result, we can see the following:

Household size: This variable has a negative coefficient and is significant at a 1% level, which indicates that food security may decrease with the increase of household size. From Table 9, we can see that with a 1% increase in household size, the probability of being food insecure will rise by 1.15%. In other words, the small size of households is more likely to be food secure than the large size of households.

Household income: This variable was positive and significant at a 1% level, indicating that the higher the household income, the greater the probability that the household would be food secure. Since, with the increase of income, access to food also increases. If household income increases in one unit, the probability of food security will increase by .0006%.

Farm size: This variable was found positive and significant at the 10% level. It implies that having more agricultural land may increase the level of food security. If the farm size increases by one unit, the probability of being food secure will increase by 0.211%.

Other variables: The age of the household head has a positive coefficient but is statistically insignificant, which indicates that the older the household head, the greater the probability that the household would be food secure. The coefficient of the number of working members of the households is negative and not significant. The negative coefficient was contrary to the expectations, and this

could be for seasonal employment or low payment at work since many households send their children to work at an early age, but the payment is given at a lower rate. The coefficient of the education of household heads was positive but not significant, which agrees with a priori expectation. Again, the period of road construction has a negative coefficient but is not significant. If the construction period becomes larger, food security is most likely to be negatively affected. The coefficient of change in land for urbanisation is positive but insignificant. That means the probability of a decrease in food security may occur due to a decrease in agricultural land for urbanisation.

Conclusions and Policy Recommendations: The paper's objective was to find out the relationship between urban expansion and the reduction of land under agriculture and its effect on food security. It is found that there is a profound impact of urbanisation on all dimensions of food security in the study area. The study area has experienced a rapid pace of urbanisation and infrastructural development within 33 years from 1977 to 2010. Consequently, the net cropped area of the selected places has declined, and non-agricultural land use has increased simultaneously. The growth and development of pre-urban and some urban areas of RCC are haphazard and unplanned, reducing the actual competency and return of the area.

This paper has shown that the socio-economic variables of the households are essential determinants of their food security or insecurity status. The paper showed that household size, household income and agricultural farm size are important determinants of food security. It also showed that most household heads are male, and about 73% are below 61 years old. It indicates that younger people are probably engaged with farm work to increase the productivity of agriculture. However, the majority of the households cultivated between .00-2.5 acres of land. The average Adult equivalent household size was approximately seven people, and almost 80.7% of the household was between 4 and 6 people. About 3% of the household heads have no education, and 13% of them can only sign their name.

The household head has education ranging from Primary Education 31.5%, Secondary education 35.2%, vocational Education 2.8% and higher Education 14.8%. The education level in this area is low, which limits the better jobs. The low level of education of households has an impact on their nutrition and food security. Since the study revealed that the education of the household head was positive, which though not significant but agrees with a priori expectation. Household income, one of the significant determinants of food security, was low in the study area. The average monthly income was BDT 23753, but Bangladesh's overall inflation rose to 6.05 percent in November 2019 due, mainly to soaring

onion prices, where the country's average inflation rate was 5.47 percent until October 2019(Xinhua, 2019).

Using the food security index, the mean value of FSI (0.39) indicates that households in the study are not food secure. The impact of different factors on food security is analysed based on regression analysis, and it is found that income of household head, household size and farm size are significant factors that affect the food security of households in the study area. This result means that change in these factors results in changes in the status of food security of the households in the study area.

An essential consequence of urbanisation can be the establishment of a new balance with the agricultural processes. This new balance necessitates direct attention to several problems that must include both formal and informal planning. The significant problems in the study area are the lower yield rate, constant increase of population, contraction of cropland by built-up area, and infrastructural development. To deal with these problems, the modern agricultural system becomes essential. A highly productive and efficient system must simultaneously protect the environment by employing sensitive and efficient natural resources (Siddique and Mukherjee, 2017). The study provides the policy recommendations that existing master plans of the city should be appropriately implemented to reduce the agricultural land conversion, and high taxes can be imposed for converting agricultural land to non-agricultural purposes. Besides, supportive policies are needed to increase farm size as well as food production. Moreover, community-based health and nutrition-related education should be strengthened through direct educational support and awareness-raising programmes.

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Female Intra-Household Autonomy: A Review of Literature

Aroni Barkat*

Abstract

This paper is a qualitative study of the existing literature on female intra-household autonomy. The first model of household decision-making used to understand bargaining power dynamics within the families assumed it as a single entity (Becker 1965). Due to this over-simplified assumption of 'common preference', Becker's unitary model seemed problematic, especially for policy recommendations. Alternative approaches like cooperative, non-cooperative and collective models later addressed the heterogeneity in preferences among the members and its implications.

This study discusses how the existing literature on female intra-household autonomy takes two broad approaches- the first group trying to find the determinants of female autonomy and the other examining different ways of measuring it. Education was one of the most critical determinants in several studies, whether by increasing physical mobility (Rahman and Rao, 2004) or creating employment opportunities. However, not all kinds of employment were empowering; employment outside the husband's farm (Anderson and Eswaran, 2009) and employment with economic visibility (Kabeer 1997) could augment women's autonomy in the family. Asset ownership and control was another important determinant- but using current asset holdings seemed problematic due to its potential endogeneity; so, studies used assets at marriage (Quisumbing and Briere, 2000) or dowry (Brown 2003) as determinants of female bargaining power in the form of increased leisure time. Other interventional policy changes in the form of

* Assistant Professor, Department of Economics, University of Dhaka.
E-mail: aronibarkat1605@gmail.com

increased legal rights for women (Rangel 2006; Adam et al. 2003) and access to credit programs (Janssens 2010) increased female autonomy. However, the success of credit programmes targeted at women depended on their ability to control the loans for autonomous activities affected by social norms. The studies that attempted to measure autonomy used three primary methods- by seeing the effect of an exogenous policy change, an instrument, or the Randomized Control Trial method.

Although studies have repeatedly expounded how female autonomy can have spillover effects on child well-being (Quisumbing and Brière, 2000), gender-equality (Aslam, 2007), and can stimulate long-run economic growth by improving human capital (Agenor and Canuto, 2015), it is high time to address female autonomy as a priority in its own right. Further research on this area will help make appropriate policy recommendations to increase female autonomy within and outside families, leading to higher female participation in practical policymaking at national and international levels.

JEL Classification B54 · D13 · J16

Keywords Female intra-household autonomy · decision-making · autonomy · bargaining power · fall-back position

1. Introduction

Female intra-household autonomy is intrinsically linked to the bargaining power dynamics within the household. Understanding the concept of female bargaining power within a household in a village, state, or country is important to understand gender relations. However, conceptualising gender relations is not an easy task due to its complexities because it embodies economic and ideological issues. Studying gender relations and power dynamics within the household is further daunting because gender norms are highly volatile and affected by varying social hierarchy structures like class, caste, and race. Such social structures are non-uniform across and between time periods and so are sometimes understood and mismeasured or, at best, inadequately. Therefore, researchers still do not understand female intra-household autonomy, a component of gender relations within the household.

Female empowerment within or outside the household has been a focus of discussion in so much literature that sometimes it is interchangeably used with simply 'empowerment'. A few papers have tried to link the concept of female empowerment with Amartya Sen's capability approach. Sen's (1999) work on inequality and poverty has criticised the literature on measuring inequality in welfare economics that were too concerned with ranking different social states. Such ordinal ways of evaluating welfare, according to Sen, failed to encompass the normative evaluations; according to his capability approach, normative

evaluations should be made based on what people can be and what they can do and not simply on what they can consume or what they earn as incomes. Thus, the capability approach rejects any normative evaluation calculated by the consumption of goods, incomes, or physical resources. These are only some means to augment well-being and focus more on the intrinsically important concepts of functioning and capabilities. An ethically and normatively individualistic theory is superior to the standard approaches to measuring well-being in welfare economics and philosophy. It accounts for individuals and not just the household as the smallest entity of the community. Thus, it explicitly acknowledges diversities in gender, race, age, sexuality, ethnicities, geographical locations.

Moreover, it addressed welfare issues beyond the market; such inclusion of non-market aspects of well-being is absent in standard models. It is clear why Sen's capability approach can address gender issues like female rights and autonomy. Due to the complexities of gender relations as discussed previously, many issues like financial welfare, reproductive healthcare rights, voting rights, labour force and political participation, domestic violence of women can be accounted for in Sen's capability approach. However, although theoretically appealing, using Sen's approach to create a somewhat satisfactory and non-controversial measure for female autonomy within her household can be extremely challenging.

Standard theories of female autonomy or bargaining power are not as broad as the capability approach. Most existing literature generally follows two approaches: the first group studies various determinants of female intra-household autonomy or bargaining power. At the same time, the other examines different ways this autonomy can be measured. The female intra-household autonomy is the female's ability to make or participate in decision-making processes relative to the husband's ability to make decisions. The ability to participate in the decision-making process cannot be explicitly calculated. So economists have repeatedly attempted to use variables like education, asset ownership (in some agrarian developing countries, this asset is most commonly assumed to be arable land holdings) in its place, assuming that there is a high correlation between these variables and autonomy. Women's relative physical mobility sometimes measures autonomy itself, her financial security, the extent of decision making in household activities like small or big purchases of commodities, health care, children's education, degree of domestic abuse suffered by her, active participation in the labour market or political awareness. The other body of literature studies factors that can increase bargaining power within the household. For instance, Anderson and Eswaran (2009) showed that in Bangladesh, not women's employment per se,

but their employment outside the house increases their bargaining power. Ownership of assets, sometimes of some specific kind of asset in the context of the women's surroundings, has been attributed to affect her bargaining power in many studies; one such study was by Agarwal (2001) in India. Still, others found that access to some interventional programs like credit programs (such as Grameen Bank's microcredit program in Bangladesh or the Rotating Savings and Credit Associations or ROSCA) can increase female autonomy in households.

A different approach to female autonomy within the household works with transparent marriage markets. According to Becker (1973) and Neelakantan and Tertilt (2008), the local sex ratio influences the spousal age ratio and work to affect marriage markets and respective bargaining powers. A study by Caldwell et al. (1983) showed that households in India had less female autonomy when the husband was significantly older than the wife. Education and, in some context, dowry or 'bride price' have also been linked to enhancing bargaining power. Even assigning a variable as an indicator of intra-household autonomy is difficult because of the nature of unobservability it poses. Autonomy is a latent variable, and often there is no way other than using proxies to characterise the extent or degree of autonomy a woman enjoys in her household. As will be discussed later, the uses of proxies are not free from criticisms as well.

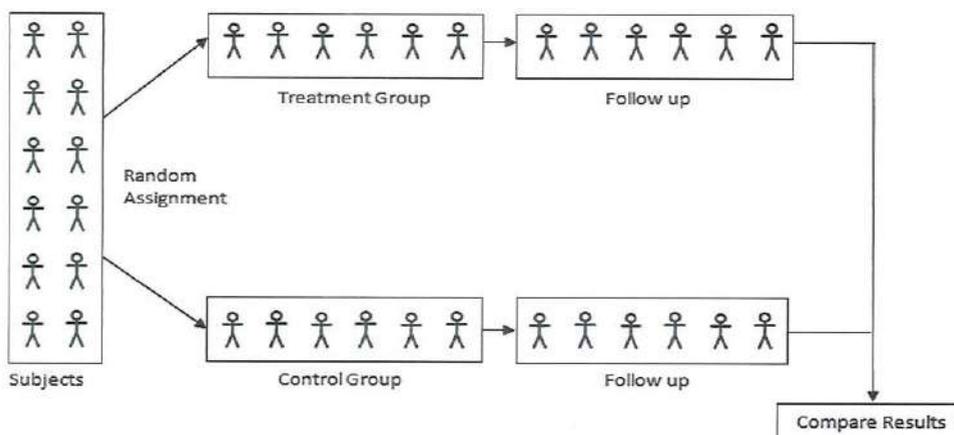
Like other economic and socio-economic studies, one huge challenge faced by the researchers trying to see what factors play pivotal roles in increasing female autonomy within her household is that the determinants and the variables correlated with bargaining power are often difficult to separate. Because factors that have a causal effect on female autonomy and variables highly correlated with autonomy often overlap, policy recommendations based on causality become even more challenging to achieve. Another point to be kept in mind is that causality can also be bidirectional. The causal relationship between factors affecting female intra-household autonomy should not work in opposite directions.

To overcome the intertwined relation of causality versus correlation and to find which factors play instrumental roles in enhancing female autonomy in the household, three broad approaches are usually followed by researchers. The first is to study the effect of an institutional or structural change, e.g. changes in divorce laws, inheritance laws, reforms favouring female empowerment, increasing credit facilities for women. Such policy changes may or may not affect the female bargaining power without necessarily affecting the other observable measures in a model. An example can be an increase in legal rights on the property, which can increase her bargaining power without affecting the amount of land she already owned. Rangel (2006) showed that a change in marriage law

that offered alimony rights and other obligations to couples after their marriages dissolved enhanced female bargaining power in Brazil. Women's programme participation (like the microcredit programs and ROSCA) is similar to policy changes. However, they cannot be directly studied as the researcher has to acknowledge that there is a possibility that only women with specific characteristics will participate in the program. It poses the self-selection issue, and unless the unobserved characteristics which determine this selection process are controlled, the results will be biased. The second way is to use an instrumental variable for bargaining power, but the instrument should not be correlated with the other confounding factors. As mentioned above, an asset in the form of land holdings is often thought to be correlated with bargaining power. However, not all types of assets would be appropriate as instruments. For instance, land brought to marriage rather than current landholdings can be an instrument. However, a better one would be the female partner's parents' landholdings to measure her autonomy in the household. Although a good instrument can overcome many complications in estimations, finding one is highly challenging, especially in the standard national household-level surveys; and using a poor instrument can do more damage than good in econometric estimations. The last way is to carry out Randomised Control Trials or RCTs. Here, a subset of the observations is randomly assigned to participate in a program or interventions, and the outcomes of the treatment and control groups are compared. This approach addresses the self-selection problem of the first approach discussed above, and the simple outline of the methods is illustrated in the figure below.

This paper purports to discuss how other literature has worked on the concept of female intra-household autonomy. Section 2 discusses the leading theoretical models of bargaining between spouses in a household. Section 3 presents the key determinants of female intra-household bargaining power that have come up in existing literature. Section 4 consists of the three main ways researchers used to measure bargaining power and briefly highlights the complexity of disentangling factors determining bargaining power from the proxies. The last section discusses the different effects of enhanced female autonomy, emphasising its importance.

Figure 1: Randomised Control Trials (RCT) to remove selection bias



2. Theoretical Models: Bargaining within Household

Initial models of household decision-making or household utility assumed a unitary entity. In this 'unitary' framework by Becker (1965), the individuals within the household had the same preferences and pooled incomes to maximise the utility of a typical utility function. By acting as a single production and consumption unit, the model assumed away any possibility of differences in preferences among the members of the same household; thus, the unitary (sometimes also known as the 'common preference') model automatically assumed that the distribution of assets or incomes within a household, or any other form of bargaining power did not affect the outcomes of production or consumption in any way. Such extreme simplification can be helpful in many settings, especially when the power dynamics within the household are not important. The appeal of the unitary model was in its over-simplification. However, there is considerable evidence- both empirical and by common sense- those individuals greatly differ in their preferences within a household. Haddad et al. (1997) argued that policy prescriptions based on unitary models might be counterproductive. It is because the unitary model postulates that irrespective of whoever receives a policy initiative in the household, outcomes will not differ as everyone has the same preference. However, in practice, the effects of policy interventions differ depending on who receives the intervention in the household. Mexico's anti-poverty program- National Education, Health, and Nutrition Program or PROGRESA- is a perfect example that recognises that households are not unitary decision-making entities. PROGRESA uses the rising consensus on how females' incomes are spent in very different ways compared to that of their male counterparts.

Under this programme, cash transfers are made to mothers in families. They are linked to school attendances of children, routine attendance to health care facilities, and in-kind facilities and nutritional supplements. The policymakers chose the mothers as recipients citing the results by Thomas (1990). It was shown that resources owned by women are used for childcare needs like health and education compared to the resources owned by men. Alderman, Chiappori, Haddad, Hoddinot and Kanbur (1995) argued sufficient evidence against the 'common preference' model. Duflo and Urdy (2004) added a concept of individual 'mental accounts' in a household. Their study showed that women tend to spend more on the needs of their children while men spend more on tobacco, alcohol and other private goods in Cote d'Ivoire.

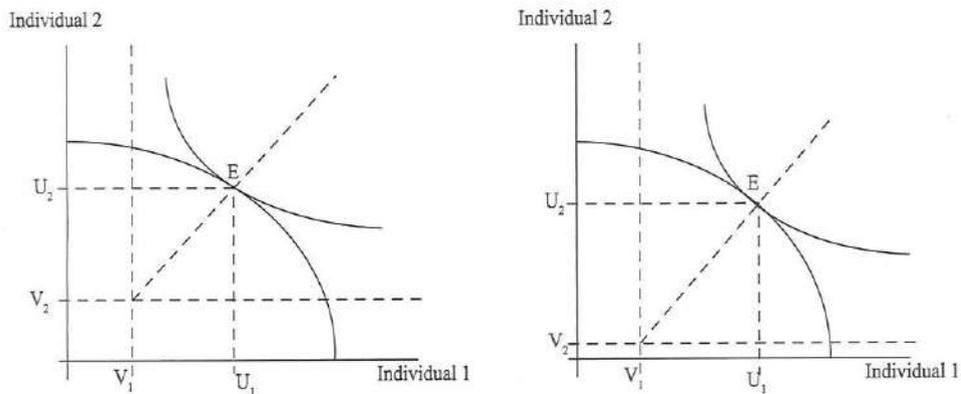
Even if the empirical findings are set aside for a minute, real-world issues alone can sometimes provide evidence favouring differing preferences within a household. Agarwal (1997) quoted the Minister of Agriculture at an Indian Planning Commission seminar held in 1989- "*Are you suggesting that women should be given rights to land? What do women want? To breakup the family?*" As Agarwal very correctly inferred, this statement assumed that the stability of a household or marriage depended on some inequality in possession of resources (in this case, land) and that self-interest or individual preferences could be so contradictory that it could even lead to the dissolution of the institution of marriage.

Due to the assumption of an altruistic household head or decision-maker who had the 'common preference' with the rest of the members, Becker's unitary model seemed problematic, especially for policy recommendations. Alternative approaches of household decision making started to address the heterogeneity in preferences among the members- namely the cooperative, non-cooperative and collective models. Manser and Brown (1980) came up with the cooperative framework based on Nash equilibrium being one of the earliest formal critiques of the restrictive assumption of common preference. The cooperative model relaxed the common preference assumption but retained the 'income pooling' assumption from the unitary model. In this two-person household, the outcome depended on the bargaining powers of individuals. With the new notion of bargaining power came the concept of fall-back position/ outside option/ threat point. The fall-back position of an individual within the household showed how well off he/she would be if the household (or the institution of marriage, in which case the two persons are husbands and wives) dissolved. Upgrading in the fall-back position indicates a better deal the person gets in the household if the threat points are not exceeded. The diagrammatic representation in Figure 2 shows how a decrease in fall-back position (V_2) shows that utility of individual 1 increases

and individual 2 decreases. Individualistic bargaining power depends on the respective fall-back position, which depends on extra-household environmental parameters (EEPs) coined by McElroy (1990). EEPs can include parental wealth, unearned incomes, various legal bindings governing marriage and divorce. As evident in Figure 2, the cooperative model ensures Pareto optimality- no one person in the household can be made better off without making the other person worse off. Even if one person's fall-back position changes, the equilibrium will still be on the utility possibility frontier. The collective model is similar to this concept, where both the spouses' bargain over the Pareto efficient frontier.

By examining the expenditure in Mexico, Bobonis (2009) concluded that the PROGRESA program depicted the pattern as predicted by the collective model. In Bangladesh, Indonesia, Ethiopia and South Africa, expenditure patterns were again consistent with the collective model (Quisumbing and Maluccio, 2003).

Figure 2: Illustration of decrease in the fall-back position of individual 2 in a cooperative model



In contrast to the cooperative model, the non-cooperative model relaxes three more basic assumptions- outcomes need not be Pareto efficient, income may or may not be pooled, and contracts need not be enforceable and binding. Therefore, unlike in the collective and cooperative models, the outcome may not be Pareto optimal, and the equilibrium may lie inside the utility possibility frontier.

Lundberg and Pollak (1993) introduced a combination of the above models where individuals could be in 'separate spheres' of activities but still cooperate in the household decision-making process. The idea addressed that threat points, or fall-back positions may not be relevant in decision-making cases between spouses on smaller or comparatively minor issues. As a result, the dissolution of marriage or divorce was not a possibility even with conflict of preferences and general disagreements. In such cases where divorce is not a credible threat, individuals

can withdraw into their respective spheres, sometimes defined by socially acceptable or traditional gender roles that are taken as 'granted' without direct bargaining. Such withdrawals are called internal threat points. The spouses can continue to bargain over other decisions like meals and childcare in a fashion similar to the Nash cooperative game. Another alternative bargaining model by Katz (1992) is the Reciprocal Claims Model, where everyone in a household has his/her own income and makes decisions on the allocation of resources by satisfying only his/her budget constraint. In this model, any income transfer, land, or other resources must be acknowledged explicitly. So how the household allocates resources is the aggregate of all the individuals' resource allocations decisions. Bargaining in this model occurs when resources are transferred between household members.

The models mentioned above as alternatives to the over-simplified 'common preference' or unitary household model do not directly address the issue of gender dynamics or asymmetries in bargaining power within a household. However, because they acknowledge that preferences are different among the same family members, it is possible to incorporate the dynamics of bargaining in these models. They may provide relatively more valuable and realistic insights for economists and policymakers. However, like most formal economics models, they are restricted by their underlying assumptions. It is difficult to grasp these models' complete intricacies of gender relations and bargaining power. They do address the differences in preferences as the bargaining component but still do not incorporate the vast array of factors, both quantitative and especially qualitative; analysis of how self-interest plays a role in the bargaining process and how social norms can affect the outcome in such models has to be made which are both beyond the scope of such formal set up of economic modelling.

Formal models that do not address how social norms shape household decision-making may give misleading outcomes and be especially detrimental in policymaking. By assuming the household as an entity in isolation and ignoring the socio-economic, institutional, and other extra-household factors in which the household/ marriage is embedded, these models sometimes only capture the partial equilibrium scenarios.

Another qualitative factor that is difficult to analyse in the modelling framework is how differences in perceptions and self-interest affect individuals', especially women's, bargain. Agarwal (1997) pointed out that women's relatively less bargaining power within a household can be due to two main reasons—either her failure to perceive her true self-interest (called a 'false perception') or by her 'altruism' compared to her male counterpart. The idea of women's 'false perception' or 'false consciousness' is that they tend to be less self-aware and

simply put the rest of the family's needs before their own. The complexity arises because in such scenarios, simply observing women's overt conformation to a well-established system of inequality (or her lower degree of autonomy) does not necessarily indicate that they have accepted the legitimacy of such discrimination; it may very well be an act out of fear of the social stigma that is present in a patriarchal society or to put it simple put- her survival strategy. A vast range of researchers has supported the notion that women tend to be more 'altruistic' or *selfless than men when it comes to spending their share of income for family needs rather than personal needs*. As discussed earlier, the PROGRESA program in Mexico provides direct cash transfers specifically to the mother for this exact reason. It is not uncommon for South Asia to forfeit their claims on inherited assets for their brothers and eat last during meals after the husbands and children have finished theirs. Although this may seem to indicate the selflessness of a wife and mother within the household, it may not be the case. For instance, women in matriarchal societies do not wait for their husbands to return and have evening meals within the same country. Also, by being 'altruistic', women may maximise their own long-term welfare within the family. It may be because, in many South Asian rural areas, women can be forced to depend on a male figure socially and/or economically, either on the husbands or during their widowhood, on their sons. Mothers who show a 'son preference' may also be motivated by self-interest rather than altruism, recognising that they may need 'male mediations' after the husbands' deaths. So, to sum up, understanding gender relations is complex because an act of female 'altruism' may very well be of self-interest. Here again, the fall-back positions are different for men and women and in reality, both may be motivated by self-interest but value family welfare to different degrees.

3. Determinants of Female Intra-Household Autonomy: Findings from Existing Literature

This section discusses the factors or determinants that are most commonly thought to increase a married woman's autonomy within her household. Before explaining the findings of much literature on this topic, it is crucial to stress the complexities of entangling determinants from the variables correlated to autonomy. In general, among the range of various variables that can significantly affect the bargaining power of a woman within her marriage, some are quantifiable. However, a lot of them are also qualitative and difficult to measure. Moreover, some determinants of female autonomy are such that they themselves need to be bargained for. An appropriate example in the context of some agrarian

economies and in some South Asian countries is arable land. While landowning can enhance a woman's threat point in a marriage, gaining ownership of the land that is rightfully hers may also need some bargaining in the first place. Following this line of thought, a state or society needs to have the social and legal legitimacy for women owning lands. Thus extra-household factors can also play crucial roles in how much their intra-household bargaining can be improved. Lastly, implicit bargaining, rather than explicit, is even more challenging to grasp as social norms can mould a person's perceptions. In many societies, 'gender roles' are taken for granted and are rarely discussed or bargained for openly. The most acknowledged determinants which have repeatedly come up in literature are discussed below.

Educational attainment and its relation to women's fall-back position within the household

Female education, her education compared to her husband's and even her father's education relative to her husband- have all been mentioned to enhance intra-household bargaining power in different studies. Education is widely used as a vital factor because it offers better access to information, increases the chances of finding a job, more labour force participation and the likelihood of adapting to new technologies in general. Rahman and Rao (2004) found that in India, when physical mobility is assumed to be an indicator for female autonomy, better-educated women had more bargaining power by a channel of increased access to information.

Perhaps the variable that seems to be most intricately linked to women's educational attainment is employment- to put it in the simplest form. Generally, a higher level of education for a woman enhances her outside options for employment opportunities and makes her more likely to contribute to the household income generation process directly. However, the reality is not that straightforward. There can be a considerable difference in employment effect on female intra- household autonomy, depending not on whether she works but where she works. In a study by Anderson and Eswaran (2009), using the data from Matlab Health and Socio-Economic Survey (MHSS) 1996, it was shown that a woman's contribution to household work was taken as 'granted' and offered no additional worth to her. Even when a woman worked for her husband's farm and contributed to the farm's income generation process, her work itself had no salutary effect on her 'say' within the household. She could not exercise any control over the income that the farm generated. Only her income mattered and increased her fall-back position within the family. Therefore, not employment per se, but only earned income outside husband's farm enhanced autonomy. A similar notion was put forward by Kabeer (1997), who stated that before the onset of

Ready-Made Garment (RMG) industries in Bangladesh, most women in lower-income households engaged themselves in casual, informal and home-based works which, despite all their hardships, has no 'economic visibility'. After they entered the factories, the people of Dhaka saw an uncommon scenario of large groups of women, apparently from lower-income households, commuting for work early in the morning and later in the evening. This drastic visibility of their workforce participation increased their bargaining power within the families.

However, one study linked educational attainment negatively with freedom of movement (a variable often treated as indicators or measures of female autonomy). Balk (1997) was probably the only study that showed that women with higher education had less mobility in Bangladesh. A plausible explanation is that educational attainment is often associated with socio-economic status. Therefore, although Bangladeshi women from better-off families could afford to spend more on educational attainment, they could also afford to choose not to work and practice seclusion. The relationship between employment and education is often thought to be like a U-shaped curve, rather than a linear one—that is, paid employment is high among women who have little/no education and are highly educated but low for women who have some, but not much education. Sometimes other factors like marriage can determine the effect of education on labour force participation. Malhotra and DeGraff (2000) found that in Sri Lanka, highly educated married women were more likely to participate in the workforce than equally educated single women. Other than the explicit benefits of her own education, education can simply signal her social status in some context. In Bangladesh, Quisumbing and Briere (2000) found that the more educated a woman and her father were compared to her husband, the more bargaining power she had within her household.

Asset ownership and its control in improving women's fall-back position within the household

The ownership of assets and control over them have been said to enhance women's bargaining power as assets may provide outside options and act as direct income sources from rent or indirectly by their use in production activities.

Typically for rural and agrarian families in developing countries, where female autonomy is pressing, arable land is almost certainly the most valuable asset. However, simply owning land formally in one's name is not enough unless she can exercise control over that land. As Agarwal (1997) stated, three other factors play pivotal roles: the society's support system favours the woman's land ownership, the legal right in community resources and the state and other institutional support. The improvement in fall-back position from owning and

having control over land (or any other kind of asset) comes from the ability to survive outside the family in case of the household's dissolution or divorce. Here the ability to exercise control over, and not merely ownership of land depends on other extra-household but crucial factors like inheritance laws, society's attitude towards a woman's claim on her land, her legal literacy, her access to government's land administration bodies and legal machines- all of which, in turn, affect how her opinions are treated within the household. However, the measurement of assets is not limited to land ownership. Doss (2006) used a measure of farmland, savings, and business assets for a study in Ghana.

Because there is no universal consensus for whether a woman's current asset is an outcome of bargaining power or a source of it, many studies have used her assets to the household during marriage as a more appropriate measure. Quisumbing and Briere (2000) asked the women in their study to recall the assets owned by them before the marriage, e.g. land, livestock. Another study by Brown (2003) revealed that the amount of bride price or dowry women brought during the marriage was positively associated with higher potential for leisure time in the household. Studies showing dowry during the marriage enhances female bargaining power later within the household assume that it is an economic resource exogenous to labour supply. Moreover, dowry can significantly enhance female autonomy if the threats are 'credible'. There is a support system provided by the social norms, legal rights, and divorce system. For instance, in a paper by Thomas et al. (1997), an asset at marriage was an indicator of bargaining power. In Indonesia, wives can take away their assets to the family during marriage if the family dissolves. However, it is also quite common in many South Asian countries that women who bring a dowry to the household during a marriage can be later pressurised or even domestically abused by husbands to bring in more dowries from their fathers' houses during the marriage- which is a result of normalisation of the practice of dowry in the society. Thus, domestic violence can be used to extract resources from spouses and their families, as shown by a study in India by Rao (1997).

Interventional programs and policy changes in improving women's fall-back position within the household

Sometimes an intervention, which can be in the form of a change in policy, legal system, programs that enhance the accessibility of credit for women, can play a significant role in determining her intra-household bargaining power. Such extra-household factors come in many forms and sizes. However, they can be broadly divided into changes in legal property rights, community-level interventional

programs by state and/or NGO's and programs to increase the accessibility of capital (mostly credit) for women.

Among literature that attempted to see whether changes in legal rights could affect female intra-household autonomy, one is by Rangel (2006). As briefly discussed in section 1, this paper saw the effect of a change in marriage law in Brazil which offered alimony rights and obligations to couples during the dissolution of marriages. The study compared hours worked by females and expenditure on children's education in families affected by the law to the families who remained unaffected by this law and found that in the families who were affected by the law, women enjoyed more leisure and resources were spent more for the education of older daughters. Another example was a change in inheritance law in Maharashtra and Karnataka, which gave equal inheritance status to girls compared to the boys. Deininger et al. (2010) showed that this change increased females' years of schooling among those whose fathers died after the change compared to those whose fathers died before the change. With data from Ontario, Canada, Adam et al. (2003) showed suicide rates among older married women dropped after a reform in family law that improved women's asset positions during the dissolution of marriages.

Other studies saw the effect of community-level interventions on female autonomy. Imai and Eklund (2008) used a Heckman Selection Model and Propensity Score Matching method to show that women's autonomous groups were more effective in improving child welfare than women who simply received external support in rural areas Papua New Guinea. The propensity score matching method was also used by Janssens (2010) to show that a program named Mahila Samakhya increased community-level trust and women's social capital in the state called Bihar in India. The women 'treated' with the intervention were also more likely to participate in local educational and infrastructural projects.

Organisations that increase the accessibility of credit or capital to women compared to men can strengthen women's autonomy in families. Numerous papers take the Grameen Bank's microcredit programme in Bangladesh or the Self Employment Women's Association (SEWA) in India as appropriate examples of this type of intervention. However, merely providing women with access to credit may not necessarily translate into their increased levels of bargaining power. Rahman (1999) showed that in a Bangladeshi village, 78% of the loans given to women were used by the husbands or sons in the household; Goetz and Sengupta (1996) also showed that 56% of loans that the women received were invested for male activities. Keeping in line with the apparent women's inability to keep control over the loans they received, Kabeer (1997) interpreted that with unequal interdependence within families and fewer outside

options for wives, women preferred to spend for the family as a whole, rather than concentrating on strengthening their economic positions within the household. Ngo and Wahhaj (2012) pointed out that access to credit for women helped to fortify their bargaining positions within households by autonomous activities only if certain conditions were met, namely, if she could invest the capital in an autonomous activity and her husband could not invest it in any other activity that would be more profitable. The best outcome could be expected if the capital could be invested in a cooperative activity where both the spouses would have to contribute actively.

Social norms and perceptions in improving women's fall-back position within the household

Apart from the obvious and relatively easily quantifiable economic factors, social norms and perceptions also play crucial roles in determining female autonomy both within and beyond the household. However, since society's attitude can be rarely captured in empirical research, finding appropriate ways to incorporate this aspect of female autonomy can be challenging. Generally, both the spouses enter an institution given a set of social rules and norms during a marriage. The extent to which the women or both the spouses will adhere to these norms is determined by the partner or/and the social peers. In places where the control is exercised mainly by the peer groups in the society, restructuring social attitudes towards gender equality can be very productive; in contrast, in cases where the husband is the main person exercising control over norms that the members within a household practice, changes in peers' attitudes may not be as effective.

In numerous societies, patriarchal authority ensures that the social norms, systems and expectations are designed to favour men irrespective of the social status, religion, culture or ethnicity. Hence, the so-called 'cooperative' system in society is shaped to maximise the welfare and perceived interest of the male compared to that of the female counterpart. Therefore, as discussed before, the success of credit programs on enhancing female autonomy within households depend on their ability to control the loans for autonomous activities. In many socio-economic contexts, the success of such credit programs in enhancing female autonomy may simply be impossible if these programs are not coupled with changes in the underlying deeply rooted social stigmas towards autonomous entrepreneurship by women. In the rural agrarian settings in which most micro-credit programs operate, social capitals like kinship, caste values, patronage and even solidarity in the form of friendships can contribute to the success or failure of credit programs in enhancing female autonomy within family. It is a perfect example where two factors of female autonomy, credit availability and the

society's norms regarding how much control she can exercise over the credit that she received, are complimentary. Agarwal (1997) pointed out that women in rural areas of some developing countries are members of such social norms. They have the right to village commons (VCs) either by birth or marriage. The VCs provide a wide array of goods for daily use and cash benefits, especially those living at subsistence (sometimes during floods, droughts, crop failure, extreme climate hazards). However, gaining access to cash transfers is not enough in areas with strong female seclusion as the woman still needs a male as a mediator to access the marketplace. Social capitals can also provide critical non-market transactions like interest-free credits from relatives or friends.

The aspect of social perception is different from social norms. It addresses the difference between what a woman actually contributes, needs, or ability versus what society perceives as her contributions, needs, and ability. These two can be very different from one another. For instance, it is almost universally true that unwaged, unpaid housework is perceived as less valuable than wage-earning works as they are financially and physically more obvious. As Kabeer (1997) showed in her study on ready-made female garments (RMG) workers in Bangladesh, the sudden involvement of thousands of women from lower-income households during the prosperity of this sector increased their economic visibility. It changed the perceived contribution towards garments workers. Economic visibility was crucial for households where the husbands were employed in different small self-employment and faced greater volatility in income generation; in such families, the females' relatively steady flow of earnings, no matter how little, decreased the households' uncertainty in income and expenditure. Even in the west, cultural devaluation of home-based work was found in a study on American households by England and Kilbourne (1990). As for the case of perceiving women's needs as less important than men's, it is common in many communities that their needs are either underplayed, treated as secondary or subordinate and in extreme cases even identical to families' needs; in the same social setting, men's needs are usually treated as primary and different from the households' needs and significant on their own rights. Such deep-seated social devaluation of female contributions and needs leads to gender deprivation and discrimination in families and workplaces. For instance, in South Asian rural areas, many women received less wage for the same task compared to men based on the assumption that they are less productive or have a lesser commitment towards the work they do or simply because they are assumed to be secondary or supplementary earners in the families and need not be paid as much as the 'primary' earners or men (Agarwal 1997). In these cases, women's improvement

of fall-back positions by increasing their accessibility to credits, village commons, and jobs will have a less than desirable effect.

It is important to note here that social norms are different from social perceptions in the sense that the former relates to well-established customs and traditions accepted by all, whereas the latter is one of the many components of social norms; social perceptions can be changed or sometimes in the long-term be institutionalised gradually into social norms.

Other factors and their effects on women's fall-back position within the household

Depending on the context where female autonomy is studied, various other factors can play significant roles to determine women's bargaining positions within households. For instance, in a study by Wu and Li (2011) based on data from China, the variable on whether the woman in the household had a first child who was a boy was related to better fall-back position within the household and which in turn was shown to have a positive impact on her nutritional intake and overall improvement in health status. However, a paper by Heath and Tan (2018) showed a different determinant in the context of South Asia. In many parts of South Asia, having a son is thought to be culturally and economically more beneficial than having a daughter. Thus the 'son preference' among parents may indicate that women with sons can have better bargaining powers within the household than those with daughters. However, this study showed that having sons do not necessarily translate into more autonomy for the mothers. Heath and Tan argued that having a daughter raises the mother's participation in the decision-making process within the household and her freedom of mobility to a greater extent than having a son. They said it is especially true when the mother has older daughters. They discussed several reasons why this is plausible; other studies which show that mothers have greater relative preferences for spending on their daughters than on their sons compared to the fathers are consistent with this conclusion because then mothers of the daughters may seek out more autonomy to direct resources to their daughters. To explain the conclusion of why having a daughter may increase the mother's mobility outside the household (often used as a measure of freedom or autonomy), they provided the following reasoning. Older daughters can assist the mother in home-based works, which in many rural areas of South Asia, an older son would not. It allows the mother to have time to enter the labour force and, in turn, increases mobility outside the house.

Moreover, the practice of providing dowry during a daughter's marriage might mean the household with a daughter will have lower future consumption (especially in the rural context). So to smooth lifetime consumption, both parents

may choose to work. Following the same line of thought, if a son provides higher insurance for the mother after she becomes widowed, having a daughter may drive her to compensate for the lower insurance she can expect from her daughter and participate in the labour force. Higher returns from sons may also encourage the mothers to invest more time for the sons doing household work, thus decreasing their likelihood of taking up outside employment opportunities. Among other factors affecting female autonomy within the household, Rao (1997) showed that husband's alcohol consumption in determining female intra-household bargaining power through the measure of domestic violence. Women whose husbands were alcoholics and became violent were more likely to remain in marriages if they had less bargaining power. They also added that this is part of a broader set of underlying factors that played important roles in female intra-household autonomy.

It must be noted that not all factors carry equal weights, and the importance or extent to which factors can determine female autonomy in families will largely depend on the context. For example, in agrarian economies, land (primarily arable land), its legal ownership and the ability to exercise control over that ownership may be the most crucial factor. Land can be strong supplementary support for women in arid or semi-arid areas where arable land is rapidly declining. Moreover, in some cases, wages from employment are often linked with access to land; like in South Asia, rural non-farm income earnings are greater among households with some land than completely landless ones (Chadha 1992). Land ownership is also crucial during severe subsistence crises (such as droughts and famines). So many rural agrarian families usually sell other forms of assets first (for example, gold/silver jewellery, household utensils, livestock) but keep the most productive asset they consider as the last resort- land. Under the urban-industrial context, other forms of property can carry more significant importance than land ownership in determining female autonomy and fall-back positions within her marriage. So, policymakers must prioritise factors to enhance female autonomy according to the context.

4. Measuring Female Intra-Household Autonomy

Perhaps one of the most complicated tasks in economic modelling is quantifying something that cannot be measured directly. Female bargaining power within families is inherently unobservable. The best that a researcher can do is find good proxies for female bargaining power. Although many good indicators can be highly correlated with female autonomy, they do not necessarily have a causal relationship. Hence, it is challenging to conclude appropriate policy measures depending upon these indicators. The challenge faced by researchers is then to

identify which variables affect or have causal relationships with female intra-household autonomy and which are merely correlated to it. A significant part of empirical studies on female autonomy strives to guide policymakers in designing effective policy instruments to strengthen family rights or autonomy. Hence, researchers often adopt methods to disentangle the channels of causations that link interventional steps to outcomes of higher female autonomy. The causal relationships can be only concluded with confidence where the econometric estimation techniques are robust. Usually, there are three main ways in which researchers have tried to identify causal effects of policy interventions on women's intra-household bargaining power. They are explained in Section 4.1.

4.1 The methods of finding the causal factors affecting female intra-household autonomy

(i) Institutional Changes or Structural Shifts exogenous to the family

Researchers often use natural experiments to assess the effect of a change in institutions on female bargaining power within households. In these natural experiments, any policy change at the community level outside the household's control can be attributed to the institutional change. One such institutional change can be an improvement in women's legal rights. As pointed out earlier in section 3, interventional programs have been shown to increase female intra-household bargaining power, e.g. a study by Rangel (2006) showed that changes in marriage laws in Brazil that extended rights of alimony and obligations to couples had a redistributive effect on power among spouses favouring women- through a higher amount of leisure time enjoyed by them and reallocation of household expenditure for the education of daughters. Another institutional change was noted by Deininger et al. (2010), who showed that in Maharashtra and Karnataka of India, inheritance laws were changed, which raised the status of daughters, making it equal to that of the sons. This change positively affected the educational attainment of girls whose fathers died after this legal change. A study by Adam et al. (2003) was also mentioned in section 3 to show how an institutional change in the form of legal reform improved women's fall-back positions in the form of improved financial stability in the instance of a marriage dissolution reduced suicide rates in Canada. Other examples of such institutional changes are already provided in Section 3 and are not iterated here.

However, apart from such apparent changes in law and order, other structural changes exogenous to the family can have casual effects on female autonomy. For example, Qian (2008) studied men's income from orchard-based crops and women's income from tea cultivation in different counties in China. He showed

that counties with more tea had higher ratios of female to male children- that is, survival rates of the girl child were higher in tea-based counties indicating higher incomes of the mothers in the families, translating into higher bargaining power. Another study used data from Bihar where the interventional program called 'Mahila Samakhya' compared 'treated' villages with 'untreated' villages by the Propensity Score Matching (PSM) technique, and the women who participated were more likely to contribute to local educational and community projects and also had spillover effects on the non-participant females in the neighbourhood; the externality caused by those who participated in the program was that even the non-participant women exhibited higher levels of trust and support and were more likely to participate in the community-level activities compared to the females in non-treated villages.

(ii) Instrumental Variable Approach

The second method is to find variables that correlate sufficiently with the measure of female bargaining power within the household but must not directly affect the outcome measures. To be a vital instrument, two critical assumptions must be met for valid econometric results: the Exclusion Restriction and the Relevance Condition of the instrument. These two conditions ensure that the instrument used in the econometric modelling does not suffer from the same endogeneity problem or that it is itself 'exogenous'.

Several factors that are thought to increase female bargaining power are arguably endogenous, and hence many studies have attempted to use instrumental variables for potential endogeneity problems. For instance, Brown (2003) studies how the size of dowry that the wife's family gives during the marriage can affect her allocation of leisure and her say in household spending patterns during her married life. To address the fact that there can be other confounding factors that can affect both the size of dowry and her autonomy within the family, Brown used the regional shocks in crop production in the year preceding the marriage and the sex composition of the bride's and groom's siblings as instruments, as both of these are logically exogenous. The study showed that higher dowries are associated with more leisure time enjoyed by wives. Quisumbing and Briere (2000) also noticed possible endogeneity in women's assets and how it affected the share of household spending on children's basic needs. As instruments of women's asset at marriage, they used both the spouses' educational attainments, age, age squared, birth order, number of siblings and living brothers, both spouses' families' land ownerships and their parents' educational attainments.

Similarly, in Osmani (2007), to show how participation in microcredit programs in Bangladesh affected land and non-land asset ownership, the problem

of self-selection into the microcredit program was acknowledged along with the potential problem of endogeneity. To rectify this, Osmani used the size of the household's labour force, number of dependents, and the household head's primary occupation as instruments for participation in the programme. However, another study showed that the Hindu Succession Act (HSA) in India increased her decision-making ability within families and affected her labour force participation positively; however, in this study as well, exposure to this reform (HSA) was determined endogenously by the timing of her marriage and so instrumental variables were used- namely her year of birth, religion and state.

The instrumental variable approach's attractiveness lies in the method's simplicity, and in some extensive national-level surveys, relevant instruments can be found. However, finding a single instrument that satisfies both the conditions for the instrument to be solid and valid can be challenging in some specific contexts. Using a weak instrument can do more harm than good in an econometric model.

(iii) Randomized Control Trials (RCT) as the Gold Standard of project evaluation

The third approach used to isolate the relationship of bargaining from outcomes is randomised interventions. In the Randomized Control Trials (RCT), participants in an intervention program are randomly assigned into treatment or control groups, as demonstrated in figure 1. With real-life data, such randomisation can be done at the community level, for instance, when interventional programmes are rolled over time. However, the first community that will receive the programme is chosen at random.

The RCT is viewed as the 'gold standard of programme or project evaluation because sometimes, in different interventional projects, participants have the choice to self-select themselves into the programme. As a result, if only people with specific characteristics are more likely to participate in the programme, the analysis of the comparison between participants and non-participants will not be accurate as the participants' unobservable characteristics were different, to begin with. So, unless unobserved characteristics that decide the program's self-selection are controlled, the results will be biased. A real-life example is the PROGRESA in Brazil- which has a randomised design since the distribution of all the variables for both treatment and control groups are equal prior to the programme intervention. Comparing the locality by averages of age, education, earnings, health care utilisation did not reject the hypothesis that the averages were equal between treatment and control groups. It validates the difference-in-difference method to compare the families that participated in PROGRESA and

those eligible in control communities. Although this approach also has its limitations, there is a consensus favouring using the RCT approach as one of the several elements in evaluating a project.

4.2 Proxies vs Factors of female intra-household autonomy

In reality, several variables seem to be closely related to the bargaining status of a woman within the family or are highly correlated with desirable outcomes of female autonomy; however, this by no means can guarantee a causal relationship on female autonomy. This common dilemma between correlation and causation raises the complicated question while measuring female autonomy within the household. This distinction between variables that are simply correlated to rather than the causes of increased female intra-household autonomy has to be made to prescribe successful gender-linked policy instruments. Valid proxies in econometric models should reflect female intra-household autonomy but should simultaneously not be influenced by, or endogenous, the outcome variable in question. The most used proxies are usually different forms of the woman's income (earned vs unearned), assets (inherited, at marriage, current), human capital, and briefly discussed a few more.

Income and employment: earned vs unearned

At first glance, women's earned income from employment can be thought to be highly correlated to her bargaining status within her family; if women can control the money they earn, they may have the ability to directly influence decisions in household purchases of children's education, health care and other such essential expenditures. It has been shown that even the mere potential to earn raises women's outside options and increases autonomy in a cooperative bargaining framework. As discussed previously, researchers also showed that women's intra-household autonomy only increased when they worked outside the husbands' farms. However, there is a problem with establishing any causal relationship between women's earned income by participating in the labour force because earned income can arguably be an endogenous variable. As Basu (2006) convincingly put, a woman's earned income reflects her decisions on the time allocation and labour force participation- which in turn can be the outcome of her existing bargaining power. A wife with higher autonomy can decide to get employed despite her husband's unaccommodating behaviour. In this scenario, an increase in her bargaining power from her labour force participation results from her previous bargaining status. To address this issue of possible reverse causality, empirical works have often opted for suitable instruments. Another problematic issue of using earned income as a proxy for bargaining power is that

sometimes work itself can be disempowering. Under extreme poverty, women may be compelled to get employed for survival and exposed to unsafe or complex work environments.

One way to bypass this problem is to use non-labour income, which can be exogenous. Unearned or transfer incomes are less related to labour force participation. This approach can solve the issue of confounding factors related to labour force participation and bargaining power but can raise some additional concerns- for instance, women who receive unearned income or transfer payments may be substantially different from those who do not, and this underlying difference can give misleading results. Also, the assumption that the unearned income is independent of the labour market may not be accurate if a significant amount of this comes from pensions, unemployment benefits.

Assets

Ownership and the ability to practice control over one's assets may be highly related to bargaining power within the family. One can expect that, like employment, asset ownership can provide women with higher bargaining power through enhancement of outside options or fall-back positions. In some cases, assets can act as sources of direct or indirect incomes and senses of securities.

Perhaps the most potent form of asset, especially in agrarian rural areas of developing countries, is land, and it has often been used as a proxy for bargaining power. However, the concept of 'ownership' in legal terms can be complex, and in many places, land as a property is challenging to be titled formally. Moreover, in many regions, having formal legal rights over land may not get translated into being able to practice the control over that land, especially for women who may need to depend on some male intermediaries like their husbands, sons, brothers or male relatives for this. As the countries grow to be more urbanised, fewer families depend on agricultural activities, and other assets like housing can be used as proxies instead. Among other forms of an asset are livestock, agricultural equipment, durable goods, business or financial assets.

In many cases, the problem with using women's asset ownership is that relatively smaller numbers of surveys include information on asset ownership (especially assets in different forms) at individual levels and mostly only at the household level. It poses complications while using these data to establish a causal relationship of female asset ownership on her autonomy. However, Doss (2006) used farmland and a broader measure that included farmland, savings and business to demonstrate that women's asset ownership increased the expenditure share on food and education in Ghana. Beegle et al. (2001) used the wife's perception of her share on assets owned by the household, such as the house they lived in, vehicles, jewellery, furniture, utensils.

Some went beyond physical assets and used the women's social networks as assets and related them to their well-being outcomes.

However, current asset holdings, just like earned income, are likely to be affected by decisions during the marriage that leads to asset accumulation- and are, therefore again endogenous. To deal with the econometric problem of endogeneity present while using current asset holdings, sometimes inherited assets are thought to be better measures. Current assets can result from the women's bargaining power within the marriage, rather than its source- inherited assets are free from this problem. For instance, Quisumbing and Briere (2000) asked respondents about their assets before the marriage, like land, cattle, durables goods, and jewellery. Thus, inherited assets are less vulnerable to be influenced by decisions within the marriage and determined mainly before the union of the spouses. However, inherited assets or assets at marriage may be subject to other endogeneity issues- e.g. if inherited assets are correlated with individual unobservable attributes or if they are endogenous to the marriage due to some sort of marriage market selection. Using asset ownership as female bargaining power may be bidirectional and pose an endogeneity issue. Women with more autonomy may be better at acquiring, retaining, and practising control over their assets which may confer additional bargaining power.

Human Capital

The most common form of human capital used in economic analyses is education because it affects desirable outcomes of gender equality inside households both directly and indirectly. Both- woman's educational attainment and the educational attainment relative to her husband are associated with increased intra-household bargaining power. Along with the notion of 'assets at marriage' as mentioned previously, education can be an attractive indicator for bargaining power for several reasons. For example, even though they may be endogenous due to the marriage market selection and correlated with unobservable characteristics of particular individuals, they are exogenous to the decisions made within marriage. Moreover, in many religions and cultures, a wedding is one of the two occasions (the other is 'death') when substantial assets transfer. So, marriage and educational attainment assets can be good proxies for bargaining power. However, one cannot rule out the cases that in many regions of developing countries, e.g. in some South Asian countries, girls get married at a very early age and whether or not they can continue to pursue higher education may often depend upon the decisions of their husbands or in-laws, in which case, her education can no longer be considered as exogenous to the decision-making process within the marriage.

Other proxies for female intra-household autonomy

Several other literatures have tried to use some alternative variables to address women's intra-household bargaining power. For example, Rao (1997) showed that men who were alcoholics were more prone to be violent in their marriages and women who had lesser bargaining power remained in the marriages despite facing marital abuse. Wu and Li (2011) showed that giving birth to a boy as a first child improved women's positions within households in China. There are also national survey questions that ask women about their perceptions of appropriate social norms- whether they think it is acceptable for the husband to abuse or physically hit them under certain circumstances mentally, or whether they think they can make or participate in decisions on contraceptive usage. These questions about self-evaluation or perception can also be closely related to female autonomy in the household. In Aslam (2007), data from Pakistan was used, and household headship was treated to measure female autonomy. However, the paper also addressed why using self-reported female headship to measure bargaining power can be problematic. For instance, a woman may simply be a token head of the household due to her age and the actual decision-making process can be done by a male member in reality.

Usually, national surveys also ask women about the extent to which they can participate in decision-making processes when there is a big purchase in the household or when choosing whether or not to utilise health care facilities for themselves and their children, and whether they need to be accompanied by a male household member when they go out of the house or not. However, independent mobility may also be undesirable when a male member accompanies a woman for security. In cases where seclusion norms in a society denote prestige and family support, many women may choose autonomously to limit unaccompanied mobility; independent mobility in these cases can be a sign of poverty rather than higher autonomy (Kabeer 1997). For instance, the 'purdah' norm in many predominantly Muslim societies is socially accepted. Women trapped in extreme poverty may be compelled to choose between the conflicting options of survival needs and social status in such communities.

It must be mentioned that apart from the bargaining dynamics between spouses, other factors may also be decisive depending upon the cultural and social norms in which the household is embedded. In many countries where living with extended families is quite common, resource allocations made by the husbands and wives may not be the only relevant variables, and the decision-making power of other important household members such as the mother-in-law and father-in-law can be critical.

5. Conclusion

Most existing literature usually explains the importance of female bargaining power by relating it to other desirable outcomes. The questions commonly posed in empirical and qualitative economics and econometric research are- what variables are influenced by intra-household bargaining power and how are they altered by changes in the distribution of relative bargaining power between the spouses, and even, do they matter? However, what constitutes an appropriate measure of desirable outcome for the woman or the household as a whole may vary. In this case, literature usually relies on Thomas's (1990) 'inferential approach', i.e. when the proxy for the female intra-household autonomy has a significant impact on the desirable outcome, the inference is that the woman prefers this outcome. For instance, assuming that there is preferential heterogeneity among spouses, if a woman owning more assets results in more food expenditure in general, it can be inferred that the woman prefers to spend more money on food and can fulfil her preference with increased bargaining power.

Researchers on female autonomy have covered some outcome variables: consumption preferences, production preferences, labour force participation, and children's welfare measures. Consumption and expenditure are often used as measures of welfare- they are thought to be more suitable than income as income can fluctuate more, and households tend to smooth their consumption path over their lifetimes. Using consumption measures as desirable outcomes for females in the household is that most surveys do not include individual-level data. So it is impossible to link how changes in bargaining power affect individual consumption patterns within a household. As a result, for any public good within the family, its changes cannot be attributed to a particular individual's change in autonomy without making robust and often restrictive assumptions.

Nevertheless, studies have shown that an increase in female autonomy in the family can affect the household's budget share in food expenditure, education, health care utilisation (Duflo and Udry, 2004; Doss 2006; Quisumbing and Maluccio, 2003). Another study by Beegle et al. (2001) showed that a pregnant woman with her own share of household assets is more likely to utilise professional antenatal care and give birth in a professional health care centre. This study was based in Indonesia. Results suggested that better educational attainment of the woman than her husband, a background of relatively higher social status, and having a father more educated than her father-in-law positively affected her reproductive health care decisions.

How the status of bargaining power of women affects production decisions, especially in agricultural households. Jones (1983) demonstrated that in the rice

fields of Cameroon, women did not prefer to allocate labour to the fields owned by men, even when it could result in higher yield. In the same context of production, Von Braun (1988) showed that if women had less bargaining power in the family farm, the beneficial effects of technologies are enjoyed by men, even though the technology was initially targeted for women. The concept of labour force participation can sometimes be related to production decisions, but this need not be the case always. The decision-making process may determine the time dedicated by a woman in the labour force within a household and, hence, by her relative bargaining power. However, labour force participation may not necessarily get translated into improved well-being of the woman. It may seem evident that empowered women may choose to participate in labour. The earnings can further improve their fall-back positions inside the families, providing them with better bargaining power. However, often, especially in families living in poverty, the women may have no other choice but to work, exposing them to unsafe working conditions. Some measures of bargaining power can also determine time allocation in household chores. For instance, Zhang and Chan (1999) showed that in Taiwan, the amount of dowry affected the number of hours spent by the husband in household works. Another outcome measure often used is the leisure time enjoyed by women.

Many studies on intra-household resource allocation and female autonomy within the household have established that if the mothers have superior control of resource allocation, there are higher positive effects on desirable outcomes for children's welfare than when the fathers control the same resources. Quisumbing and Maluccio (2003) showed that increasing resources controlled by women in Bangladesh and South Africa lead to higher spending on children's education. They added that this was not just because mothers act more 'altruistically'; there is robust economic logic for why this might be the case. Given that the wives are mostly younger than their husbands and women have a higher life expectancy, mothers can be more interested in investing in children's education. They are more likely to become dependent on their children when they get old. Other studies have shown a positive association between empowered mothers and the better nutrition status of children.

Although studies have repeatedly expounded how female autonomy can have spillover effects on child well-being as measured by health and education (Quisumbing and Brière, 2000), gender-equality (Aslam, 2007), and due to the feminisation of child-rearing practices can stimulate long-run economic growth by improving human capital for the future generations to come (Agenor and Canuto, 2015), it is high time to address female autonomy as a priority in its own right. Improvement in female intra-household autonomy can affect female well-

being directly by reducing marital violence. Panda and Agarwal (2005) showed that assets owned by women in the form of land ownership reduced incidences of domestic violence in India. However, if successful, attempts to increase female autonomy in families will not be limited within the household. Many developing countries now treat gender equality as one of their primary goals. Achieving female autonomy both inside and eventually outside the families will lead to higher female participation in national-level policymaking. Because women's experiences are different from men's, their opinions need to be represented formally in discussions; more women in leadership positions can bring about different perspectives in policy measures, especially in issues of reproductive health care, wage differential based on gender, equality in legal rights, most of which are often decided by men who do not necessarily experience the implications of such policy decisions. Further research on determinants and measurements of female intra-household bargaining power will help make appropriate policy recommendations to increase female autonomy within and outside families, leading to higher female participation in significant policymaking at national and international levels.

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Consumer Preference of Consuming Farm Raised Fish in Rajshahi City Corporation

Naznin Sultana*
Mst. Amuda Khatun**
Md. Fahad Al Ashik***

Abstract

Fish is an important source of animal protein which is consumed by people almost all over the world. Dietary fish consumption patterns are influenced by complex interactions of several factors such as geographic and demographic profile, availability, income, tradition and customs, etc. In this study, a total of 100 survey responses (100 in-person) residing in the district of Rajshahi city were randomly selected. This study utilized a logistic regression model or logit model to measure consumers' preference for farm-raised fish. The study found that 42 percent families consume 1 to 5 kg wild fish in a month, while 45 percent families consume 1 to 5 kg farm fish in a month. It is also found that 72 percent of the total respondents have interest for farm raised fish because of the low price, where 28 percent choose wild fish. The estimation of the results of logistic regression model found that out of eleven independent variables four variables are statistically significant at different levels, which are education of household head, market price of fish, quality of fish and no alternative of farm fish to fulfil the demand of protein. Age and gender of the household head, household income, household size, nutrition of fish, taste of fish, food security are not statistically significant.

* Lecturer, Department of Economics, Varendra University, Rajshahi,
E-mail: nslep11@yahoo.com

** Undergraduate Student, Department of Economics, Varendra University, Rajshahi.

*** Undergraduate Student, Department of Economics, Varendra University, Rajshahi.

Among these variables only age and gender of the households have positive impact on consumer preference and the other variables have negative impact. On the other hand, education, market price of fish, quality of fish and no alternative of farm raised fish have a significant but negative impact on consumer preference. The result shows that the value of Pseudo R² is 0.415, which means that 41.5% variation of farm fish preference is explained by the considered explanatory variables. Finally, this study suggests that, fisheries department and fish farmers should be more careful and follow the rules of applying fish feed to produce healthy and nutritious fish at farm level.

JEL Classification Q22 · C2 · D12

Keywords Farm Fish Vs Wild Fish · Consumer Preferences · Logistic Regression Model · Rajshahi City

1. Introduction

Fish is an important source of animal protein which is consumed by people almost all over the world. Dietary fish consumption patterns are influenced by complex interactions of several factors such as geographic and demographic profile, availability, income, tradition and customs, etc. Fish and fish products play a highly important role in the food and nutritional security of rural, urban and coastal populations throughout the world. In recent years, consumers have started to understand that food choice may have consequences for their health (Franz and Nowak, 2010). There are countries where catching or farming fish is a vital part of rural people's livelihoods and contributes a major source of protein, especially for the low-income and deprived populations. A healthy diet is now a trend which is getting good attention in the world (Kaimakoudi et al., 2013). The importance of fish in both cultural and nutritional terms is clear, yet harder to pin down what are the actual amounts of fish that people throughout the world/region/country are consuming.

Increase in aquaculture production is being attempted though both the expansion of area under culture and the intensification of existing practices. Extensive areas of wastelands appear to be available for aquaculture in most countries of the region, except in Singapore and Hong Kong. According to rough estimates the area under culture has increased about 25 percent in the last three years. The available area for future expansion is estimated to be around 20 million hectares. Detailed site surveys, including studies of alternate uses of such area, are required to determine whether all these can be used and are available for aquaculture purposes.

The study of York and Gossard (1993) reveals that fish consumption is influenced by cultural/geographical features, and economic development which

stimulates Asians to eat considerably more fish. But in non-Asian regions, economic development stimulates consumption of meat. The pattern of consumption of fish is different in terms of quantity, quality, and the different levels of natural availability of aquatic resources in adjacent waters as well as diverse food traditions, tastes, income levels, prices and seasons (FAO 2012).

According to the report of FAO 2012, annual per capita fish consumption varies from country to country which ranges from 10.0 kg to 100 kg. The annual per capita consumption of fish was highest in Oceania (24.6 kg), followed by North America (24.1 kg), Europe (22.0 kg), Asia (20.7 kg), Latin America and Caribbean (9.9 kg), and Africa (9.1 kg) in the year 2009. The report reveals that global per capita fish consumption increased from 9.9 kg in the 1960s to 18.4 kg in 2009. The most substantial increases in annual per capita fish consumption have occurred in East Asia (from 10.6 kg in 1961 to 34.5 kg in 2009), Southeast Asia (from 12.8 kg in 1961 to 32.0 kg in 2009), and North Africa (from 2.8 kg in 1961 to 10.6 kg in 2009). China has been responsible for the increase in world per capita fish consumption due to the substantial increase in its fish production from aquaculture. China's share in world fish production grew from 7.0% in 1961 to 34% in 2009. Per capita fish consumption in China has also increased dramatically, reached about 31.9 kg in 2009, with an average annual growth rate of 4.3% in the period 1961-2009 and of 6.0 % in the period 1990-2009.

Mirza and Ismot (2017) conducted a study to obtain a clarified concept about financial, educational and physiological circumstances in relation to fish consumption status as a diet of rural people of Islamnagar village next to Jahangirnagar University campus at Saver Upazila under the Dhaka district in Bangladesh from August, 2016 to February, 2017. The results of this study enlighten that the people were engaged in various professions as local businessman (72%), government employee (8%), farmer (4%) and others (16%). Their monthly income varied from BDT 5,000 to BDT 55,000. In spite of their engagement in varied professions, they had awareness about fish intake. The people consumed small fish (50%), large fish (44%), and dried fish (6%) of both indigenous and exotic species. This study indicates that the people of higher income consumed both small and large fish frequently in each month, whereas, those of lower income consumed the dried and small fishes occasionally.

Significant advances have been made in some of the developing countries in more intensive way. For example, techniques have been developed to increase production in pond culture of milkfish from an average of 600 kg/ha to 2000 kg/ha. Similarly, polyculture methods have been devised to increase production of carp ponds from an average 900 kg/ha to 8000 kg/ha. But the application of these techniques in the field has not kept pace or contributed substantially to increased

production. Well organized extension services and provision of inputs and credit were considered the major constraints. The availability of trained technicians varies considerably between countries, but in almost all there is an urgent need for field personnel with adequate practical experience and ability to establish and manage aquaculture enterprises. Fish farmers in some of the countries of the region have shown their receptiveness to new technologies and have even brought about innovations of their own to suit local conditions. On the other hand, in some countries the farmers have been reluctant and slow to change the traditional methods and adopt improved techniques, particularly when additional inputs are required. This attitude is not always because the economic viability of the operations has not been demonstrated. In countries like Thailand, it has been shown that the average income of fish farmer is about six times more than that of an agriculture farmer and substantially higher than that of a coastal small-scale fisherman. This fact has to be given better publicity, particularly because most countries of the region wish to develop aquaculture as a means of generating employment for the unemployed and underemployed people in the rural sector or as a means of employment for people who have to be relocated or rehabilitated, e.g., coastal fisherman losing employment due to changes in the fishing industry or people displaced due to river basin or industrial development projects.

The most significant to expansion or intensification of aquaculture in the region is the production and distribution of fish fingerlings. Most countries experience difficulties in even maintaining the present level of fish fingerlings production, and still depend to a large extent on collection of wild fish fingerlings even where methods of artificial propagation have been developed. Suitable organization of fish breeding, larval rearing, transport and distribution need high-priority attention in most countries of the region. Technical assistance and cooperation between countries in the exchange of expertise, pituitary material for breeding fish, brood fish and even fry, were measures considered by the workshop to be-important in solving this problem.

Farm-fish and wild caught fish make a good contribution to human well-being, food security and removing poverty in Rajshahi city, Bangladesh. The more detailed our understanding of consumption patterns, the more effective our management actions will be, potentially to the benefit of millions. In Bangladesh, mostly tilapia and catfish production comes from aquaculture. Farmed tilapia production reached 4.8 million tonnes in 2013. Production of farmed catfish-like species 9 in the same year reached almost 4.2 million tonnes, including 2.0 million tonnes of pangassius family catfishes (FAO, 2015a). Farmed catfish from *Ictalurus* family production reached 419 000 tonnes, all of it belonging to channel catfish (*Ictalurus punctatus*) (FAO, 2015a). To protect the United States domestic

catfish industry, the United States Congress passed a law in December 2001 restricting use of the label 'catfish' in the United States market to only the species from the *Ictalurus* family farmed in the United States of America (Narog, 2003). A significant part of catfish and tilapia wild capture catches come from culture-based fisheries. In 2013, wild tilapia production reached 715 000 tonnes, while catfish from *Ictalurus* family production reached 13 000 tonnes – 667 000 tonnes when we apply a less-strict definition of catfish (so that other species are included, such as those from the pangassius family (FAO, 2015a). International tilapia trade has expanded significantly, from less than 1 000 tonnes in 1995 to almost 800 000 tonnes (live weight equivalents) in 2011, valued at about US\$1.4 billion (FAO, 2015a). China is the main exporter, with more than 80 percent of world exports in 2011, while the United States of America is the main importer with almost 80 percent of global imports (FAO, 2015a).

Some developing countries mostly consider a future increase in food demand and consumption in view of the population increase. Seafood industry will evolve as a consequence of specific consumer demands, both in developing and developed countries. Many retailers, particularly in Western Europe, have conceived private labels for fish, aiming to a better food products qualification than in the past. During the 1990s, retail sale of processed food products grew rapidly in Eastern Europe. At the same time, consumers have become increasingly conscious of their needs and they frequently ask for healthy and cheap products. In Latin America, similarly to Eastern Europe, wealthy people prefer timesaving products and food having high healthy attributes, high quality and variety. Latin America, some developing countries and Asia are undergoing changes, similarly to Eastern Europe (Regmi and Gehlhar, 2005). British consumers are concerned for bovine spongiform encephalopathy and for hormones and antibiotics use in farms and biotechnological applications are not always accepted in food production (Spencer, 2001). On the contrary, in the USA, these aspects are a concern only for a few people; furthermore food quality, price and the ability to supply a needed food volume have a low significance (Skytte and Blunch, 2001). Consumers' idea about food quality is complex, indeterminate and uncertain and it is sometimes not congruent.

Fish farming has expanded in Paba, Mohanpur, Durgapur and Tanore Upazilas of Rajshahi district and Manda, Badalgacchi and Mohadevpur Upazilas of Naogaon and Bonpara, Lalpur and Boraigram Upazilas of Natore district over the last few years. Several hundreds of large ponds have been excavated where fishes are being cultivated commercially. During the last ten years, several thousand tons of carp and other varieties of fish were produced in the three districts of the Rajshahi division. According to the sources of the Department of

Fisheries, live fishes which are produced in Rajshahi areas are being supplied to different areas across the country including the capital city daily. Around 250 truck-loaded live fishes are being supplied from Rajshahi region to other part of the country. Every truck carries 500 to 600 kegs of live fish. Carp varieties like rui, katla, mirage, silver carp and grass carp are the most popular. Rezaul Islam, deputy director of DoF, Rajshahi, said Rajshahi was pioneer in achieving self-sufficiency in fish production. Many people in Rajshahi have improved their financial condition by fish farming on a large scale.

Most of the consumers in Rajshahi city preferred wild fish compare with farm fish. The consumers believe that farm fish are not nutritious and also not good for their health. Although the consumers buy farm raised fish for their daily consumption due to its cheaper price and availability. The educated and rich people prefers to eat wild fish rather than farm fish. The main objectives of this study is to identify the factors influencing of consumers' preference for farm-raised fish in Rajshahi city. To achieve the main objective, this research sets some specific objectives. The specific objectives of the study are as follows:

1. To describe the socio-economic characteristics of the study households
2. To identify the factors influencing the consumers' preferences for farm-raised fish in Rajshahi city.
3. To forward some policy suggestions.

This study tries to achieve the above objectives and answer the related research questions by conducting a primary survey on the sample households living in Rajshahi city. To pursue this study data has been collected from different markets of Rajshahi city. An analysis of data is performed by using simple descriptive statistics and logistic regression model.

2. Methodology

2.1 Selection of the study area, number of sample and data collection procedure

In this study, the Rajshahi district is chosen which is situated in northern part of Bangladesh. The data collected for this particular research can play a vital role in the development of fisheries and natural resource policies that may have considerable impact on the most low-income/poor segments of the population of this area. This study, examines survey data related to farm-fish and wild caught fish consumption in Rajshahi city, Bangladesh. This information is collected directly from the specific group of people who consumes fish. It is hoped that this

study can help shine the light on consumption patterns of wild caught-fish and farm-fish products in Rajshahi city at household level. The data collection procedure occurred from September 2019 to November 2019. A total of 100 survey responses (100 in-persons) were randomly collected. Eighty-two observations included in-person surveys collected from fish markets and rest of the information collected from around the city in-person.

2.2 Data analysis

In this study, after receiving the survey responses, the raw data were checked to identify any inconsistencies and potential errors. The quantitative data collection phase was completed after retrieving the raw data. This study utilized a logistic regression model or logit model to measure consumers' willingness to pay a premium price for farm-raised fish. To do so, at first, the sample data were entered into a Statistical Package for Social Science (SPSS) software, version 15 and then the descriptive analysis and the statistics of responses was produced by using SPSS software.

From previous studies, the demographic factors, including gender, age, and family size, and socioeconomic variables, such as education level and family income, were taken as the factors that influence of consumer's preference. These variables are directly mentioned in some of the literatures (Haghiri, 2014, Rigueira et al., 2014). Here, it is hypothesized that, with larger family size, a household will be less willing to pay a 6 to 10 per cent price premium for farm-raised fish because it will be expensive for them. On the other hand, with a higher education level, a person will be more likely to pay 6 to 10 per cent more as a price premium, as it is expected that they are more concerned about the traceable fish.

Besides socio-economic and demographic factors, this study also focused on a number of behavioural factors and knowledge variables and hypothesized that they are relevant to identifying consumer's preference for farm raised fish. For example, it can be predicted that a consumer who searches for food-safety information frequently, will be more concerned about origin of the fish and will show a negative reaction for farm-raised fish.

2.3 Empirical specification

The logit model is estimated to find the effects of the different factors on consumer's fish preference at household level. The model used fish preference status of the households as a dichotomous dependent variable. The empirical relationship between dependent variable and explanatory variables is specified using the following relationship.

$$Li = \ln[\pi/(1-\pi)] = \beta_1 + \beta_2 GHH + \beta_3 HMI + \beta_4 EHH + \beta_5 AHH + \beta_6 HS + \beta_7 NF + \beta_8 TF + \beta_9 FS + \beta_{10} QF + \beta_{11} MPF + \beta_{12} NA + \mu_i \quad (1)$$

Where, Li is the log

GHH = Gender of the household head

HMI = Household monthly income

EHH = Education level of the household head

AHH = Age of the household head

HS = Household Size

NF = Nutrition level of fish

TF = Taste of fish

FS = Food security

QF = Quality of fish

MPF = Market price of fish

NA = No alternative to Fulfil the demand of protein

B_1 are regression coefficients and B_2, B_3, \dots, B_{12} is the random error term. The coefficients of the regression model are estimated by applying the maximum likelihood estimation (MLE) technique.

2.4 Measurement of dependent and explanatory Variable

In this section the units of the variable their measurement procedure is discussed. The dependent variable was dichotomized with a value.

Based on these studies, expected signs were hypothesized for the selected variables. This lists definitions of variables and measurement methods the expiration of the dependent variable and the explanatory variables included in the model are described below:

Gender of the household head: The gender of the household head is denoted as GHH . It is a dummy variable. The variables take the value 1 if the household is male headed and 0 if the household is female headed or others.

Income: Total monthly consumer income refers to the total earnings of the consumer in a month. The basis for the selection of variable to examine empirical factors of earlier studies (Okwudilio et al., 2006; Babaunde et al., 2007; Omonona et al.; Babatuned et al., Ahungwa et al., 2013; Yusuf et al.; Adeniyi and Ojo 2013; Iorlamen et al., 2013; Kuwornu et al., 2013), The expected effect of this variable on farm fish preferences is negative. This variable is denoted this study. If the income of the consumer is higher than the consumer is willing to buy wild fish at a higher price rather than farm fish. On the other hand, if the income of the consumer is lower, the consumer will buy farm fish at a cheap price.

Table 2.1: Description of Variables Using the Logit Model

	Variable	Type	Measurement
Dependent Variable	Consumer preference	Dummy	1 if farm fish and 0 otherwise
	Gender of the household head	Dummy	1 if male headed, 0 otherwise
Explanatory variables	Income	Continuous	Amount of money earned by the consumer
	Education	Continuous	Formal education level of the consumer
	Age	Continuous	Age of the consumer
	Household size	Continuous	Total number of members in the family
	Taste of fish	Dummy	1 if household preferred farm fish, 0 otherwise
	Food security	Continuous	Food security level of the consumers
	Size and Quality	Continuous	Size and quality of fish
	Nutrition of fish	Dummy	1 if fulfil the demand of protein, 0 otherwise
	Market Price of fish	Continuous	Market price of fish.
	No alternative of farm raised fish	Dummy	1 if there is alternative of farm fish, 0 otherwise

Source: Author's design, 2019

Education: Education is a human capital which helps human to get better job and an educated one earns more income compared to an uneducated one. With more income a household can afford more food for family (Babatunde et al., 2007). Moreover, an educated household head can arrange balanced and nutritional diet for his/her family. Moreover, education influences access to knowledge, increases opportunities of income, development of nutritional status and access to benefits and resources. According to Shaikh (2007), the educated individuals have capacity to process and apply the information passed on to them. An increase in public education not only increases their returns but also improves their productivity as well as contributes positively to the national growth (Kuwornuet al., 2013). Some earlier studies (Babatunde et al., 2007; Shaikh, 2007; Okwudilioet al., 2006; Omononaet al., 2007; Adeniyi and Ojo, 2013; Yusuf et al., 2011; Ahungwaet al., 2013; Iorlamenet al., 2013; Babatunde et al., 2010) have found that education is important in choosing the right fish of household. Thus, education of household head could have negative effects on choice of fish of household. In the present study educational status of household head is expressed by EHH.

Age: The age of the consumer is expected to have negative impact on consumer preferences. The consumer's having high age may like wild fish rather than farm fish. Thus the expected effect of age on consumer preferences could be positive too. This variable is denoted as AHH in this study.

Household Size: Generally, household size means total members of the household. However, a household may comprise of children, middle aged and adult members and the consumption of all of them are not same. Some earlier studies (Babatunde et al., 2007; Omonona et al., 2007; Adeniyi and Ojo, 2013; Iorlamente et al., 2013; Yusuf et al., 2011; Babatunde et al., 2010) have found that household size is important in choosing the fish items for the consumer. This variable is denoted by HS.

Taste of Fish: If there is no difference between the taste of farm fish and wild fish, then the price does not matter. Sometimes the consumer prefers to buy fish which is tastier and also full of nutrition's. The wild fish is tastier than the farm fish so this variable has a positive effect on consumer preferences. This is denoted as TF in the model.

Food security: This variable has a positive effect on consumer fish preferences. If the fish is good for health, then the consumer willing to buy the fish. This variable is denoted as FS in this study.

Quality of fish: The size and quality of fish also affects consumer preferences positively. Consumers love to buy big size of fish if the quality is good. This is denoted as QF.

Nutrition of fish: If the fish can fulfil the demand of protein of the consumers, that means the fish item is full of nutrition then the consumers have no problem to buy farm fish. So this variable has a positive effect on consumer preferences to buy farm fish. This is denoted as NF.

Market Price of fish: This is an important variable for this study. The market price of fish may have a positive impact on consumer's choice of farm fish. If the price of farm fish is higher than wild fish, then the consumer choose to buy wild fish and if the price of farm fish is lower than the wild fish then the consumer choose to buy farm fish. This variable is denoted by MPF.

No alternative of farm raised fish: It is a dummy variable denoted as NA in the model. This variable takes the value 1 if there is alternative of farm fish, and 0 for otherwise.

3. Result and Discussion

This section presents the finding of the study and the presentations of the results are expressed tabulated form.

3.1. Age of the sample households

Table 3.1 shows the age group and descriptive statistics of the sample households. The households in the study area were aged between 20 years to 60+ years old. These ages were arranged into three age groups. The youngest range was 20-40 years being 52 percent of the total households, 41-60 years (33 percent), and the oldest representing 15 percent of the total households were 60+ years. This grouping is important because in this study it is used to determine the preferences of the consumer in choosing the fish or fish item for their family consumption.

3.2 Distribution of consumer's family members surveyed

From Table 4.2, it is clear that most of the families lie between 5 to 8 members that is 55 percent of the total sample households. This results indicates that the family size of the consumer's is medium. The table shows that, 30 percent family has 1 to 4 members and only 15 percent family has 9 to 12 members.

Table 3.1 Age Distribution of the sample households surveyed

Family member	Frequency	Percentage
20-40	52	52.0
41-60	33	33.0
60+	15	15.0
Total	100	100

Source: Field survey, 2019

3.3 Distribution of the level of education of respondents surveyed

In this study, education level of the households is classified into seven categories such as 0 (illiterate) primary, secondary, S.S.C., H.S.C., bachelor and Masters. The findings show that among the sample household, 7 percent lies up to Bachelor level, and followed by 23% and 4% are having SSC and HSC degree respectively. A very small number of the respondents which education level between class 6-9 only 1% of total respondents given their opinion about this topic. Among these

Table 3.2: Distribution of consumer's family members

Family member	Frequency	Percentage
1-4	30	30.0
5-8	55	55.0
9-12	13	15.0
Total	100	100.0

Source: Field survey, 2019

only 4 percent respondents were illiterate and the highest number around 46 percent of the respondents have their master degree.

3.4 Distribution of income level of the consumers

In figure 4.1, the bar diagram shows the monthly income of the consumers. The income is divided into four main income groups. According to the figure, 30 percent respondents earns less than 25000 tk. in a month. Most of the respondents i.e., 61 percent earns 25000 to 50000 Tk in a month and 8 percent earns 50,000 to 100000 Tk whereas only 1 percent earns 100,000 to 150000 Tk in a month.

Table 3.3 Distribution of respondents by the level of education

Education level	Frequency	Percentage
0	4	4.0
1-5	15	15.0
6-9	1	1.0
SSC	23	23.0
HSC	4	4.0
Bachelor	7	7.0
Masters	46	46.0
Total	100	100

Source: Field survey, 2019

3.5 Choice for fish

The histogram below indicates that among the 100 respondents 87 percent consumers prefer to eat fish and only a few number i.e., 13 percent don't prefer to eat fish as a meal. So, it is clear from the findings that in Rajshahi city most of the consumers prefers every kind of fish (both farm raised and wild) fish rather than meat.

3.6 Consumption of wild fish

Table 4.4 indicates that 42 percent family consumes 1 to 5 kg wild fish in a month while 40 percent consume 5 to 10 kg and only 18 percent consume 10 kg or more wild fish in a month. The reasons behind this low consumption of wild fish is the higher price. The wild fish is expensive compare to the farm raised fish so most of the people cannot able to afford the cost.

3.7 Consumption of farm fish

The following table 4.4 indicates the consumption of farm fish in a month. The table shows that, 45 percent consumers eat 1 to 5 kg fish in a month and 29

percent eat 5 to 10 kg in each month. The rest of the consumers i.e., 26 percent eat 10 kg or more farm fish in a month. The reasons behind this is that the farm raised fish is cheaper than the wild fish.

Table 3.6 Quantity of consumption of wild fish

Amount of wild fish consumption monthly (kg)	Frequency	Percentage
1-5	42	42.0
5-10	40	40.0
10 +	18	18.0
Total	100	100.0

Source: Field survey, 2019

3.8 Consumer interest for farm fish

The table 4.6 shows that 72 percent of the total respondents have interest for farm raised fish because of the low cost for fish where 28 percent choose wild fish. This is because they believed that wild fish tastier than farm fish and full of nutrition's. The following figure i.e., the histogram shows the percentage of interest of the consumer for farm fish.

Table 3.7 Quantity of consumption of farm fish

Consumption of farm fish monthly (kg)	Frequency	Percent
1-5	45	45.0
5-10	29	29.0
10+	26	29.0
Total	100	100.0

Source: Field survey, 2019

3.9 Is the farm raised fish is a threat for the wild fish?

Table 4.7 explain that 53 percent consumers believe that farm raised fish is a threat for the wild fish. On the other hand, 47 percent consumers believe that there is no problem in the supply of wild fish because of farm fish. But most of the consumers believe that firm raised fish is threat for the wild fish. This is also shown in figure 4.4 with the help of a pie chart.

Table 3.8 Interest for farm fish

Consumer interest	Frequency	Percent
Yes	72	72.0
No	28	28.0
Total	100	100.0

Source: Field survey, 2019

3.10 Description of Logistic Regression Model Results

The estimation of the results of logistic regression model are presented in Table 4.8. From the table it has been seen that out of eleven variables four variables are statistically significant at different levels which are education of household head, market price of fish, quality of fish and no alternative of farm fish to fulfil the lack of protein. Age and gender of the household head, household income, household

Table 3.9: Is the farm raised fish is a threat for the wild fish?

	Frequency	Percent
Yes	53	53.0
No	47	47.0
Total	100	100.0

Source: Field survey, 2019

size, nutrition of fish, taste of fish, food security are not statistically significant. Table 4.8 has shown that the value of Pseudo R² is 0.415, which means that 41.5% variation of farm fish preference is explained by the considered explanatory variables. The obtained log likelihood ratio is -32.109 and LR Chi-square statistic for the goodness of fit of the model is 12.50.

Gender of household head (GHH): The gender of the household head has positive coefficient (0.5087218) but not statistically significant. This indicate that

Table 3.10 Results of Logistic Regression Model Analysis of Consumer Preferences

Variable	Coefficient	Std. Error	z-statistic	Prob.
C	8.796253***	2.546539	3.45	0.001
GHH	0.5087218	1.324923	0.38	0.701
HMI	-2.0325307	.0000211	-0.01	0.992
EHH	-0.3303195**	.1383981	-2.39	0.017
AHH	0.1498449	.2996329	0.50	0.617
HS	-0.0644506	.2238246	-0.29	0.773
NF	-1.246233	1.205447	-1.03	0.301
TF	-1.477909	1.552782	-0.95	0.341
FS	-1.640024	1.377654	-1.19	0.234
QF	-2.278457*	1.143378	-1.99	0.046
MPF	-2.490365*	1.227567	-2.03	0.042
NA	-6.269357***	1.755331	-3.57	0.000

Log likelihood = -32.109094, LR Chi-square (10) =12.50, and Probability Chi-square =0.2532, Pseudo R²= 0.4153Source:

Note: *** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

Author's own calculation, 2019

a household with male headed are more likely prefer farm raised fish compare to female headed household head. Like other city, most of the households of the Rajshahi city are male dominated and basically male people bear all expenses. To manage family expenditure, the low and middle income people have no option to buy wild fish as it is very expensive and shift their preference to buy farm raised fish.

Household monthly income (HMI): From Table 3.10 it is found that the coefficient (-2.0325307) of the variable 'household monthly income' is negative but not statistically significant. This report also supports the expected outcome the researchers mentioned earlier. If the respondent's income increases, then they would prefer wild fish which is caught from open sources rather than farm raised fish.

Education of the household head (EHH): Education increases household's knowledge and preference of good and nutritious food. Educated consumers are more conscious about the fish quality, and how and where it is farming. The regression results express that the coefficient of education (-0.3303195) is negative but statistically significant at 5% level. At present, farmers who raised farm fish used fish feed which is produced by different chemicals. Sometimes the produces used tannery waste to produce fish feed which is also harmful for human health. Educated consumers collect information about the quality and nutrition of the fish and if they have any doubt then they take decision to buy more wild fish.

Age of household head (AHH): The Table 3.10 has shown that the coefficient of the variable age of the household head (0.1498449) is positive but statistically not significant. This means that the higher the age of the respondents, farm fish is more preferable to them. The per capita income of the people of Rajshahi city is low compare to Dhaka, and Chittagong and there is no employment or old age benefits. Therefore, due to low income and wealth the old age people prefer farm raised fish which is cheaper than wild fish.

Household size (HS): The coefficient of the household size is negative and not significant and the value of the coefficient is -0.0644506. The negative result indicates that with large households are more likely to buy more fish and they prefer farm raised fish for low cost. This finding is supported by the expected outcome. Fish is a valuable and safe food item for the source of protein of the family members. Therefore, consumers try to keep some protein items in everyday food menu. It is very expensive to buy wild fish everyday due to high price and because of this reason respondent choose farm raised fish as alternative.

Nutrition of fish (NF): Nutritious food is very important for our daily life. To maintain good health people should careful before choose any food item. All kind of fishes are not nutritious. Nutrition of fish also depends on how it is raised.

When fishes are growing in open water bodies and take feed from natural sources then the nutrition level of these fish is high compare to farm raised fish. The coefficient of the variable 'nutrition of fish' is negative and the value is -1.246233 indicates that though the nutrition level is high of farm raised fish but due to food safety consumer would buy less farm raised fish.

Taste of fish (TF): The regression result of the coefficient of variable 'taste of fish' (-1.477909) is negative as the taste of farm raised fish is low compare to wild fish but due to low cost and fulfil the demand of protein, the general consumers buy more farm raised fish. Day by day the supply of farm raised fish is increasing but people are not satisfied with the taste of fish.

Food security (FS): It is found that the coefficient of the variable food security (-1.640024) is also negative and statistically not significant. This result expressed that food security variable has negative effect on the preference of farm raised fish. If the consumers are more food secured, then they will choose more wild fish rather than farm raised fish. On the hand, the marginal people whose food security level is low, they will consume more farm raised fish as it is cheap and available.

Quality of fish (QF): The value of the regression coefficient of variable 'quality of fish' (-2.278457) has negative effect on farm raised fish preference but statistically significant at 10% level. The quality of farm raised fish is low compare to wild fish. After catching the farm raised fish is decaying very quickly. Sometimes, farm raised fish has infection in their body but due to large number of consumers and demand people ignore the equality of farm raised fish and buy and consume them.

Market price of fish (MPF): The coefficient of 'market price of fish' is negative but statistically significant at 10% level and the value is -2.490365. The negative result point out that if the market price of farm raised fish is high then consumer will not prefer to buy farm raised fish. With same price consumer will prefer to buy wild fish which is tastier and nutritious.

No alternative of farm raised fish (NA): The coefficient of the variable 'no alternative of farm raised fish' (-6.269357) is negative but statistically significant at 1% level. When the number of alternative fish (wild fish) is reducing then people will buy more farm raised fish. In fact, the number of fish species is reducing and less wild fish is caught at present time due to siltation in river, canal and pollution. If there are more variety of wild fishes, then consumers will buy less farm raised fish.

The above variables have positive or negative effect on farm fish preference significantly or insignificantly. Some variables match with our expectation and

some are not. Therefore, the considered variables are important factors that influence consumer's preference of farm fish and wild fish.

4. Recommendation and Conclusion

4.1 Policy Recommendations

As the population is increasing rapidly, so it is very difficult to fulfil the demand of fish of all consumers at a time. Although most of the people prefers wild fish compare to farm fish but to fulfil the demand of future population the contribution of farm raised fish is increasing day by day. By maintaining some rules like giving proper and healthy fish feed to the fish farm and implementing the existing rules related to farm cultivation will be helpful to maintain the quality of farm fish.

General people lost their interest on farm fish as the fish producers use chemical mixed unhealthy fish feed which ultimately transfer to human body and cause of different diseases in human health. Proper monitoring and action is needed to punish the dishonest fish feed producers as well as need clear levelling on the feed bags mentioning the ingredients and their effects on the health of fish and human body.

People afraid of eating farm fish as the dishonest whole sellers or retailers add excess formalin with farm fish which is dangerous for human health. Proper market inspection and checking the quality of fish by Bangladesh Standards and Tasting Institutions (BSTI) is necessary for ensuring the quality of fish.

Taste is an important factor of purchasing and consuming farm fish. The respondents suggest cultivating fish in open water bodies like in beels, haors, baors and river in a close way and using less chemical food. So, the taste of farm fish will increase as well as the demand.

Income is negatively related with the preference of farm fish as income increase people will buy less farm fish and more wild fish but if the producers maintain proper guidelines and standards of producing fish then the demand of farm raised will not reduce.

Market price of fish is negatively related with consumer preference of farm fish. The price of farm fish increases due to high price of fish feed and medicine and the tendency of making unusual profit of middlemen. The authority should control the price of fish feed and medicine and break the syndicate of middlemen to supply fish with affordable price.

4.2 Conclusion

The study has found that 42% family consumes 1-5 kg of wild fish and 40% family consumes 5-10 kg wild fish in a month, while 45% consumers eat 1-5 kg farm fish and 29% eat 5-10 kg farm fish in a month. It is also found that 72 percent

of the total respondents have interest on farm raised fish because of low price and available every market, where 28 percent choose wild fish. This is because they believed that wild fish tastier than farm fish and full of nutrition's. The estimation of the results of logistic regression model indicates that out of eleven variables four variables are statistically significant at different levels which are education of household head, market price of fish, quality of fish and no alternative of farm fish to fulfil the lack of protein. Age and gender of the household head, household income, household size, nutrition of fish, taste of fish, food security are not statistically significant. The value of Pseudo R² is 0.415, which means that 41.5% variation of farm fish preference is explained by the considered explanatory variables. Strict monitoring and regulation is needed to ensure feed quality and supply formalin free farm fish to the consumer level. To reduce the market price of farm fish, authority should control the feed price as well as the profit of middlemen.

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Incidence of Youth Unemployment and the Vulnerability Status of Unemployed Youths in Rajshahi City

Md. Ataul Gani Osmani*

Md. Rakibul Islam**

Md. Habibur Rahman***

Md. Al-Amin****

Abstract

Youth unemployment in urban areas poses an unprecedented challenge to the economic development of Bangladesh. Youth unemployment in Rajshahi city is a good example. The study tries to present the incidence of youth unemployment in Rajshahi city to represent unemployed youths' vulnerability status. For this purpose, the study uses primary data collected from randomly selected 125 passed out students of different educational institutions in Rajshahi city. The study firstly applies descriptive statistics approach to describe the incidence of youth unemployment and secondly, the Analytic Hierarchy Process (AHP) to present the vulnerability status of unemployed youths in the city. Results find a severe incidence of urban youth unemployment in Rajshahi city where both the youth unemployment rate and mean duration of unemployment are relatively high relative to the national rate. It is calculated that the youth unemployment rate is 61%, and the mean duration of unemployment is 2.5 years. The youths who are unemployed are

* Assistant Professor, Department of Economics, Varendra University, Rajshahi. E-mail: ataul@vu.ac.bd

** Lecturer, Department of Economics, Varendra University, Rajshahi. E-mail: r.islam@vu.ac.bd

*** Research Assistant, Department of Economics, Varendra University, Rajshahi. E-mail: habibecovu21@gmail.com; alaminvueco@gmail.com

**** Research Assistant, Department of Economics, Varendra University, Rajshahi. E-mail: habibecovu21@gmail.com; alaminvueco@gmail.com

leading miserable livelihoods through their haphazard lifestyles. The AHP results show that the youths are highly vulnerable in economic, social and institutional indicators. Therefore, unemployed youths in Rajshahi city should be provided with economic incentives, awareness building training, and institutional facilities to create entrepreneurship opportunities.

JEL Classification E24 · I31 · J13 · J64

Keywords Youth Unemployment · Vulnerability · Haphazard Lifestyles · Rajshahi City

1.1 Introduction

Unemployment is a macroeconomic phenomenon (Mankiew, 2003), one of the major challenges for both developed and developing countries worldwide (Kassa, 2012). Although the impact and intensity differ from place to place, it has a consistent adverse impact on growth and development through loss of labour force productivity. Several unexpected private and social problems are bound to rise due to the high unemployment rate, such as increased crimes, suicides, poverty, alcoholism, prostitution (Eita and Ashipala, 2010). In developing countries, high unemployment rates may spread HIV/AIDS (Henry et al., 1999; Haile, 2003). In general, the cost of unemployment is one of the prime sources of human tragedy for developing countries.

Bangladesh is a lower-middle-income country where unemployment is a crucial issue and becoming a social evil, especially for urban areas (World Bank, 2015) as the countries are well on the path of rapid urbanisation (Ahmed, 2012). Although the country's rural economy has witnessed a tremendous pace of employment creation through non-farm jobs, employment creation is so complex in urban areas. It is observed that despite a decrease in the rate of unemployment in Bangladesh from 5.1% in 2009 to 4.30% in 2014, the urban unemployment rate is alarmingly increasing (BBS, 2014). The urban unemployment rate in Bangladesh is 6.45%, almost twice that of rural unemployment (3.94%). It is mainly the cause of high unemployment among master's degree holders and engineering and medical students (Ahmed, 2012). These sorts of youth unemployment are prevalent to a large extent around the urban areas of Bangladesh. About 36% of urban youth are out of employment (World Bank, 2015).

Moreover, a vast majority of young people recently in Bangladesh are migrating from rural areas to urban areas for looking employment (Sohel and Khan, 2015). Because of the deficiency in the rural labour market, there is always a tendency to migrate to urban areas with development resources than rural areas. Due to this population pressure, jobs created in urban areas are not enough for

everyone who wants to work. According to Keynes (1936), this creates cyclical and involuntary unemployment because the returning rate from the countryside is high; those returning had to be absorbed into the urban economy (Knight and Xue, 2006). There also exists a mismatch between the skill of an unemployed person and the particular skill needed for being employed in urban areas of Bangladesh (Ahmed, 2012). It is evidence of structural unemployment in the urban economy of Bangladesh. Sometimes job seekers and providers fall into a fraught interaction in Bangladesh, and hence the problem of frictional unemployment due to the transitional period between job loss and entry to the next job is also evident in the country's urban areas. Therefore, it confirms that there exist several forms of unemployment in the urban economy of Bangladesh. The effects of the problem are both prolonged and widespread compared to the other actual problems in the city areas. Rajshahi is a divisional city where all types of unemployment exist among the graduated youths from different educational institutions. Because the city is still not industrialised with modern facilities and the city is yet to be updated with the dynamic service sector.

Despite a flood of research on unemployment, most researchers in Bangladesh always overlook urban youth unemployment. The scant number of existing studies in this issue has been criticised for being poorly designed, devoid of theory, and narrow focus. The current research aims to establish a reliable and valid instrument that will systematically assess the incidence and vulnerability status of urban youth unemployment in Rajshahi city of Bangladesh.

1.2 Literature Review

In drafting the idea for the study of urban youth unemployment, the researchers review the existing literature comprehensively. However, the empirical research on the issue of urban youth unemployment is scant. The earlier studies on unemployment and even on urban employment are flooded over the world. Some of the critical earlier studies regarding urban and urban youth unemployment are summarized in the following table.

1.3 Methodology

1.3.1 Sources of Data

There are two main avenues of data sources for the study, such as primary data through personal interviews with structured question schedules and secondary data from journals, books and other sources.

Table 1: Summarised Literature Review

Author(s)	Year	Subject	Methodology	Findings
Sernceels	2004	Nature of Urban Unemployment (Ethiopia)	Simple statistics	Almost half of the urban young people are unemployed who are well-educated and government job seekers.
Josh Mitchell	2013	Long-term unemployment (USA)	Descriptive statistics	Most of the long-term unemployed people are uneducated and oldest where the responsible factors are racism, gender discrimination, work-limiting disabilities.
Prakash & Abraham	2004	Urban unemployment (Kerala)	Simple statistics	The growth of urbanisation is rapid, and there is an excess supply of educated young labour force but slow growth of the organised sector and thereby urban youth unemployment.
Nivorozhkin	2006	Risk and duration of urban unemployment (Russia)	Econometrics and duration Modelling	About one-third of the unemployed finds their job efficiently, and the rest of them continues searching. It also found that with a longer duration risk of job searching tends to decrease.
Baah-Boateng	2013	Determinants of unemployment (Ghana)	Probit regression model	Sluggish growth of the high labour absorption sector is the reason for unemployment and slower economic growth. Moreover, youth urban dwellers are severely vulnerable.
Alivon & Guillaïn	2018	Urban segregation and unemployment (France)	Spatial probit model	The probability of unemployment is higher for people living in a deprived neighbourhood or near a deprived area.
Saungweme et al.	2014	Unemployment, output growth and (Zimbabwe)	Log-linear model	The main forcing factor behind the thriving informal sector is the continual collapse of the formal job sector.
Baah-Boateng	2015	Unemployment in Africa	Scatter plot and simple correlation analysis	There is a significantly negative correlation between unemployment and informality.

Author(s)	Year	Subject	Methodology	Findings
Tansel & Tasci	2010	Determinants of unemployment duration (Turkey)	Non-Parametric and parametric estimation methods	The unemployment duration of women is higher than men and age has negative, and education positively relates to unemployment.
ILO	2008	Global Unemployment trends of youth	Descriptive statistics	The Youth unemployment rate is increased more than four per cent in South Asia (1997-2007).
Ajaegbu	2012	Unemployment and Crime (Nigeria)	The deprivation theory proposed by Ted Gurr	The feeling of deprivation and frustration created by unemployment is the reason for violent crime incurred by youth.
Okafor	2011	Youth unemployment and democracy (Nigeria)	Descriptive statistics	The stability of democracy is in danger because of joblessness among youths.

Source: Summarised by the Authors

1.3.2 Study Area

The study is based on primary data collected from Rajshahi City Corporation, Rajshahi district, Bangladesh. The city is the most urbanised area than the other districts of the northern part in Bangladesh, which is both a Zila and a divisional town, has been flourished day by day. In 1988, Rajshahi city emerged as Rajshahi City Corporation, one of the first few in Bangladesh. The area of the city corporation is 96.72 square kilometres, and it possesses a total of 731128 populations (BBS, 2001). The city corporation is between 24-05', 25-14' North Latitude and 88-09' to 89-25' East Longitude. The average annual temperature in the city is 23.80C, with a mean annual rainfall of about 1447.6 mm. Rajshahi city is on the northern bank of the Padma River. The city corporation is mainly populated by high, middle- and lower-income classes. The residents include academic professionals, government officials, bank officers, NGO workers, rickshaw pullers, shopkeepers, salesman, day labourers, and domestic workers have been seen in a large number.

1.3.3 Sampling Design

Using a multistage sampling technique, 125 respondents were selected for the study. The first stage is featured as a purposive selection of Rajshahi City Corporation. In the second stage, five educational institutions from the existing list are selected randomly. The educational institutions are Rajshahi University, Rajshahi College, Rajshahi Polytechnic College, Varendra University and Varendra College. In the third stage, the lists of students are collected from the selected educational institutions who have passed their final examination. After collecting the list, randomly selected 25 students from each selected institution are interviewed to collect data for our study. It constitutes 125 respondents for the study. The study is restricted to the youth respondents who have completed their education at master's, honour's and technical levels and looking for jobs.

1.3.4 Measurement of the Duration of Unemployment

Transition data analysis or duration modelling will be used to model the impact of various socio-economic characteristics on the unemployment duration among individuals who passed the university/college/diploma. We use the Kaplan-Meier plot of survival function in this process, which measures how many people remain in the unemployment pool (survived) as time passes.

Unemployment duration is measured in days beginning from the date of result publication and ending with the date of employment. The spell is considered right-censored if an unemployed individual was still unemployed at the end of our

observation period. Therefore, following Serneels (2004), the study constructs the measure of duration as follows:

1.3.5 Calculation of Vulnerability Score

Firstly, the researchers first select variables from different social, economic, and institutional factors to measure vulnerability scores. Again, for measuring each variable secondly, the researchers select different indicators. Thirdly, the present study uses the Analytic Hierarchy Process (AHP) to assign weights for each variable and its indicators. The Analytic Hierarchy Process (AHP) is a structured technique for dealing with complex decisions. Rather than prescribing a "correct" decision. The AHP originally was developed by Saaty (1980) and often it is referred to as the Saaty method (Coyle, 2007 and Rahman, 2007). The vulnerability score equation is:

$$\text{Vulnerability Score} = \sum \text{Variable Weight} \times \text{Indicator Weight} \text{ -----}$$

By using this equation, the vulnerability score of each respondent is calculated. Thus, the resulting summation unit is uniform, but the scale ranges are different, i.e. maximum and a minimum score of each respondent represents different values. Therefore, it should be in a standard scaling system. In this study, the standard scale ranges from 0-100 is selected. In this uniform scale, the 100 value represents the most vulnerable.

On the other hand, 0 value represents no vulnerability. According to this uniform scale, all scores of respondent level are standardised using maximum value as scaling point. The following equation is used for standardising:

$$S_{VC} = \frac{IR_{VC}}{H_{VC}} \times 100$$

Where S_{VC} = Standardised Vulnerability Score
 IR_{VC} = Individual Respondent Vulnerability Score
 H_{VC} = Highest Vulnerability Score among respondents

1.4 Results and Discussion

In analysing primary data in line with the objectives of the study, the study finds exciting results. The significant parts of the obtained results are presented and discussed in the following sections.

1.4.1 Distribution of Respondents According to the Level of Education, Age Marital Status and Employment Situation

Table 2 reports descriptive statistics for showing the distribution of respondents according to the level of education, marital status and employment situation.

Firstly, it is found that most of the respondents have honour's degree followed by master's and technical degree. As the study objectives are concentrated on youths. The survey finds that most 67% of respondents are aged between 20-25 years, and the other 33% are aged between 25+ to 30 years. The survey also finds that only 5% of respondents are married.

Table 2: Distribution of Respondents according to the Level of Education, Age, Marital Status and Employment situation

<i>Level of Education</i>	Percentage of 125 respondents
Master's	33.54%
Honour's	46.46%
Technical Degree or Diploma	20%
<i>Age</i>	
20 to 25 years	67%
25+ to 30 years	33%
<i>Marital Status</i>	
Married	5%
<i>Employment Situation</i>	
Public Sector	13%
Private Sector	16%
Part-time	3%
Self-employment/Private Tuition	7%
Unemployed	61%

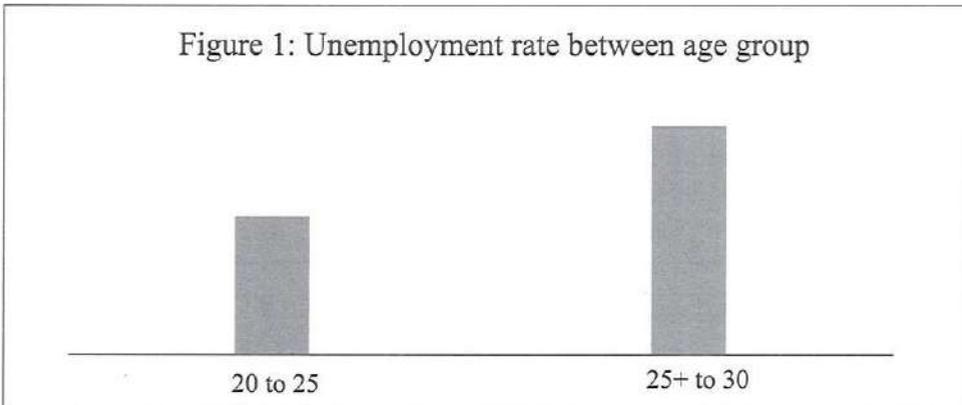
Source: Authors' Calculation from Field Survey Data, 2019

Table 2 also finds that the youth unemployment rate is relatively high in Rajshahi city. It is calculated that 61% of the 125 respondents are unemployed, where 16% are employed in the private sector, and only 13% are involved in public services. There is little opportunity for self-employment and part-time jobs.

1.4.2 Rate and Duration of Unemployment in Rajshahi City

Figure 1 plots the unemployment rate against age to illustrate the concentration of unemployment among the educated young. The graph shows that in the age group between 20 to 25 years, the unemployment rate is 0.46, where the rate is 0.76 for the age group between 25+ to 30 years.

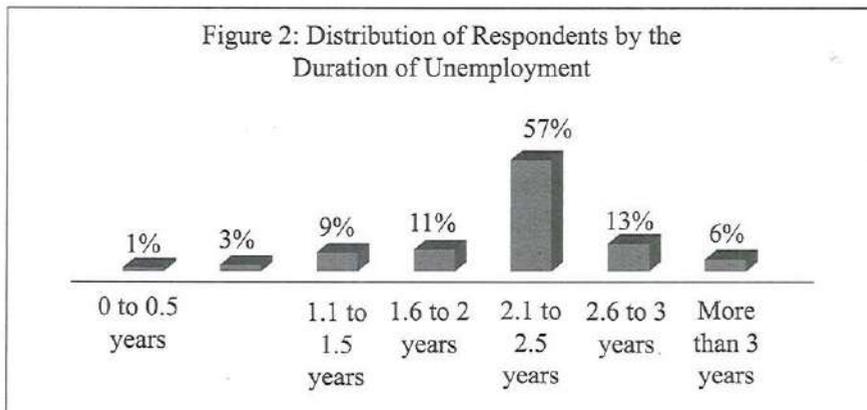
Moreover, it is estimated that the mean duration of unemployment among the youths in Rajshahi city is 2.5 years or 30 months. Figure 2 shows the distribution of respondents by the unemployment duration. It shows that most 57% of respondents need 2.1 to 2.5 years to be employed.



Source: Authors' Calculation from Field Survey Data, 2019

1.4.3 Vulnerability Status of Unemployed Youths in Rajshahi City

The ultimate goal of this study is to develop an overall vulnerability index, which represents the level of vulnerability to unemployment among youths in Rajshahi city. The following results presented in Table 3 have been developed by aggregating three factors of vulnerability: economic, social, and institutional factors. The following Table 3 presents that the highest number (66.52%) of respondents are highly vulnerable due to unemployment. Because of, most of the respondent youths are economically, socially and institutionally very highly vulnerable due to unemployment.



Source: Authors' Calculation from Field Survey Data, 2019

Table 3: *Vulnerability Scores of Unemployed Youths in Rajshahi City*

Degrees of Vulnerability	Frequency	Per cent	Range/Scale of Vulnerability Score
Low	5	3.61	0-25
Moderate	13	10.69	26-50
High	24	19.18	51-75
Very High	83	66.52	76-100
Total	125	100	

Source: Authors' Calculation from Field Survey Data, 2019

It is observed from Table 3 that a good number (19.18%) of youths are highly vulnerable to waterlogging. Few (10.69%) respondent youths are in moderately vulnerable situation whereas only 3.61 per cent of households in the study area are less vulnerable due to unemployment hazards.

1.5 Conclusion

The study has two-fold objectives, such as determining the rate and duration of youth unemployment rate and investigating the vulnerability status of unemployed youths in Rajshahi city. It is a unique study in Bangladesh as it applies a rigorous methodology to obtain study objectives. This study is a significant example for further investigation of the severity of youth unemployment in the city areas of Bangladesh.

The study finds that the rate and mean duration of youth unemployment in Rajshahi city is relatively higher than the national rate and duration. Moreover, the study finds that most unemployed youths in the city are leading haphazard lifestyles with a high level of vulnerability in terms of economic, social, and institutional indicators. Therefore, it is urgent to look towards unemployed educated youths in the city with economic incentives and create entrepreneurship opportunities with awareness and institutional facilities.

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Women Health Status and Disease Pattern in Rural Bangladesh: A Study of Bogura District

Shahida Khatun*
A. N. K. Noman**
Kazi Julfikar Ali***

Abstract

This study attempts to find the women's health status and disease pattern in rural Bangladesh. It finds a pattern of common diseases and social and environmental factors responsible for the diseases of the rural women in the study area. A binary logistic regression model was used to find the determinants of the poor health status of the respondents. The study's findings reveal that among the common diseases, the most common diseases are cold disease, malnutrition and acidity. The percentages of respondents who suffer from the diseases mentioned above are 58.3, 35.0 and 49.2, respectively. The main reason for cold disease and skin allergy may be the use of polluted river water for bathing and washing utilities. It is also found that the age of respondents, household size, family's monthly income, number of diseases and number of visits to the doctor of respondents have a significant impact on the poor health status of rural women in the study area. Age and number of diseases are the major determinants of the poor health status of rural women in the study area. The probability of respondents being in the poor health status category increases with the increase in age and the number of diseases of respondents. A family's monthly income is another major determinant of the poor health status of rural women in the study area. The probability of respondents being in the poor health status category

* Research Student, Department of Economics, University of Rajshahi.

** Professor, Department of Economics, University of Rajshahi. E-mail: noman_eco@ru.ac.bd

*** Associate Professor, Department of Economics, University of Rajshahi.

E-mail: julfikar.eco@ru.ac.bd

decreases with the increase in income level of the respondent's family. The study recommends that government reasonable health status efforts, especially for rural women, should focus on appointing more female health workers, making proactive policy in expanding income generating activities for women, strengthening supports for education opportunities, and proper family planning.

JEL Classification O15 · I12 · I15 · I18

Keywords Health Status · Rural Women · Diseases Pattern · Logistic Regression · Bangladesh

1. Introduction

It is widely recognised that the health and well-being of women and children suffer most in disasters and conflicts (crisis setting) and that their additional needs do not receive due attention from humanitarian and other service providers. These special needs derive from the vulnerability of women to sexual and gender-based violence, reproductive morbidity, sexually transmitted infections including HIV, mental distress, and gender-related inequalities that impact the health and nutrition of women. Gender constructions and discourses shape how rural women and men live their lives, and, consequently, gender is a crucial determinant of health status. So, this study was conducted to analyse the health status and diseases pattern of rural women in Bangladesh.

Health status is a holistic concept determined by more than the presence or absence of any disease. It is often summarised by life expectancy or self-assessed health status and more or broadly includes measures of functioning, physical illness, and mental well-being. Health status is an individual's relative level of wellness and illness, taking into accounts the presence of biological or physiological dysfunction, symptoms, and functional impairment and can be determined by age, household size, family's monthly income, occupation, and by the number of diseases and number of visits to a doctor. Fair or Poor Health Status is defined as respondents who report having fair or poor health from possible response choices of "excellent", "very good", "good", "fair", or "poor". Women's health status has implications for a country's development and quality of life. Women's health is vital in developing countries since their traditional role as a family caregiver makes them chiefly responsible for the health of their children, husband, and other family members in the home. However, the stereotypical view of rural women is that they are stoical, used to adversely and self-reliant. As overseers of the family members who are ill or in need have care, often to the detriment of their health. Rural women's health status is likely to differ depending on where they live.

Though rural women constitute an overwhelming majority of women in developing countries, they suffer from various diseases. Health is an essential requirement to improve the quality of life. The international declaration of Health rights proclaims that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being" (Perry 2000). Women's health involves their emotional, social, spiritual, and physical well-being and is determined by the social, political, and economic context of their lives, as well as biology (Navarro and Shi 2001). Globally, 43% of all women and 56% (on average) of pregnant women suffer from iron-deficiency anaemia (Allen 2000). Every year, about 10 million women endure life-threatening complications during pregnancy and childbirth, sometimes leading to long term disability (WHO 2015). The primary health problems of women are related to malnutrition and environmental factors that are disease-related and mostly preventable (Blair 1980 and Helweg-Larsen and Kruse 2003). In urban areas, only 28% of the population live, but about 75% of health infrastructure, medical workforce and other health resources are concentrated in urban areas, and the rest 72% of people live in rural areas. However, only 25% of medical facilities are concentrated in rural areas (NFHS-3 data). Contagious, infectious and water-borne diseases such as diarrhoea, typhoid, infectious hepatitis, worm infestations, measles, malaria, tuberculosis, whooping cough, respiratory infections, pneumonia and reproductive tract infections dominate the morbidity pattern, especially in rural areas. However, non-communicable diseases such as cancer, blindness, mental illness, hypertension, diabetes, HIV/AIDS, accidents and injuries are also rising.

The susceptibility of women in Bangladesh to these poor health conditions directly results from poverty, inferior socio-cultural status, and limited access to health care services. Poverty contributes to poor health through economic dependence, poor nutrition, substandard housing, and inadequate access to sanitation and safe drinking water (Buor, 2004; Wyss, 2003; Williams, Sobieszczyk, & Perez, 2000; Gijsbers Van Wijk, Van Vliet, & Kolk, 1996; Gellert, 1995). Without income, women cannot obtain nutritious foods and adequate housing that protect and improve their overall health (Buor, 2004). The lack of potable water and proper sanitation facilities also contributes to the rapid spread of infectious diseases. Women's health is intrinsically linked to their status in society, especially those living in rural areas. Research into women's status in society has found that the contributions of women make to families are often overlooked. Instead, they are often regarded as economic burdens, and this view is common in rural areas of the northern belt. There is a strong preference for sons in Bangladesh because they are expected to care for ageing parents. This son preference and high dowry costs for daughters results in the mistreatment of

daughters. Indeed, women have low levels of both education and formal labour-force participation. They typically have little autonomy, living first under the control of their fathers, then their husbands, and finally their sons. These factors have an adverse impact on the health status of Bangladeshi women.

- To achieve this primary objective, this study set some specific objectives, which are as follows:
- To find the common diseases pattern and the social and environmental factors responsible for the diseases of rural women in the study area. To analyse the determinants of the poor health status of rural women of the study area.

The structure of the present study is as follows: after presenting the issue in the introductory section, a brief literature review is provided in Section 2. The materials and methods employed in this study are provided in Section 3. The description of data about to find the common disease's pattern, as well as the social and environmental factors responsible for the diseases of rural women in the study area and discussion of result about the determinant factors of poor health status of rural women in the study area, are presented in Sections 4 and 5 respectively. Finally, the conclusion and policy recommendations are provided in Section 6.

2. Literature Review

Women are the most neglected and deprived section of the society in Bangladesh. Women's health and health care are minor or not attended in the traditional society, especially in rural areas. Women's health complexities and problems are among the significant health problems in Bangladesh. Every year, a large number of women endures life-threatening complications during pregnancy and childbirth. The primary health problems of women are related to malnutrition and environmental and disease-related factors. Various studies have been undertaken about diseases and morbidities among rural women in Bangladesh. Some of these studies are given below:

Elahi, Rashid and Sarkar (2016) illustrate that substantial life of women and children are lost every year in Bangladesh through various diseases. Their study area of Gangachara Upazila of Rangpur district is one of the munga-prone areas in Bangladesh. To have performed the analysis on the data sets and derived the findings, applied GIS, as usual, descriptive statistical tools and techniques and collected two types of primary data (socio-economic and geographical) from the field by conducting a questionnaire survey, FGD and GPS device. Their result shows that maximum women families sanitary systems are non-hygienic. Women

and children face different kinds of health problems. They are also affected by several water-borne diseases, and they do not get any doctoral facilities. Paul, Murshed and Akter (2014) illustrate that most women of three char villages of Nilkamal Union of Haimchar Upazila under Chandpur district were found illiterate and not fully conscious about health and health care aspects. The overall health condition of women was found very poor and affected by various diseases from lack of personal attention and adequate health care. They evident that most women aged 26 to 45 in the study area were the most sufferers of a different number of diseases like fever, diarrhoea, skin diseases, asthma, reproductive tract infections (RTI), and various gynaecological diseases. They also identified that water and sanitation-related diseases are very common among the women of the study area, which may result from unsafe water and unhygienic sanitation practices. Joshi and Schultz (2012) analyse the impact of an experimental maternal and child health and family-planning program implemented in Matlab (Dhaka), Bangladesh, in 1977. Village data from 1974, 1982 and 1996 suggest that program villages experienced extra declines in the fertility of about 17%. These program effects are robust to the inclusion of individual, household, and community characteristics. They conclude that the benefits of this reproductive and child health program in rural Bangladesh have many dimensions extending well beyond fertility reduction, which do not appear to dissipate after two decades. Munsur et al. (2010) examined the socio-economic backdrops, living arrangements, health status and abuse of the women aged 60 years and older in the rural Naogaon district of Bangladesh. The result is that an overwhelming majority of the older women aged 60-69 years are widowed, illiterate, have no education and income, are economically dependent, live with married children, are unhealthy, and suffer from arthritis-related illness.

Furthermore, the study shows that nearly 35 per cent of older women are abused, mostly mentally abused, due to poverty. Logistic regression analysis reveals the determinants of living arrangements, health status and abuse of older women. The findings of their study should get due attention to provide secured later life of the elder predominantly female elderly in Bangladesh and developing nation as well. Islam (2006) gauge the general and maternal health status of rural women. They selected two villages Khayerhuda and Monoharpur, of Chuadanga district. They report that 40% of the households were landless, while 44.5% did not have any regular income. About 9% of the women had any income at all to support their families. Only 7% of women had the opportunity to visit nearby satellite clinics or FWCs (Family Welfare Centres) accompanied by untrained TBA (Traditional Birth Attendants) or FWA (Family Welfare Assistants). Self-motivated sterilisation was almost absent among all the women.

Most of the respondents attended quacks or Kabiraj (traditional healers) for general illnesses. Diarrheal was the most common disease experienced by participants. Another study on anaemia among non-pregnant women in rural (Twelve randomly selected villages in Fulbaria Upazila of Mymensingh District) Bangladesh (Ziauddin et. al.2000) found that anaemia was highly prevalent (73%). Most of the women had mild (52%) or moderate (20%) anaemia, but a few of them suffered from severe anaemia (1%). Ascaris was common (39%), while hookworm was not (1%). The anaemia prevalence had no statistically significant association with age, parity or Ascaris infestation. Women with less than one year of schooling who were landless or reported having an economic deficit in the household had a significantly higher prevalence of anaemia. There was a significantly increasing trend in anaemia prevalence with decreasing socio-economic situation. However, anaemia was common in all social strata.

3. Materials and Methods

3.1 Selection of the Study Area

In this study, two villages (Baoitona and Joybhoga) were selected randomly from the Naruamala Union of Gabtali Upazila of Bogra district, about 10 kilometres away from the Bogra town. Various categories of socio-economic characteristics inhibit all these two villages. The main characteristic of these villages is that the women are suffering from various diseases. The number of households in Joybhoga village is 555, and the average household size is 3.9. The literacy rate of this village is 51.3%. Where the number of households in Baoitona village is 360, and the average household size is 3.6. The literacy rate of this village is 65.9%. Agriculture and livestock sectors play a vital role in these villages. The villagers produce varieties of crops, namely rice, jute, wheat, potato and other vegetables.

3.2 Research Design

The research employed a cross-sectional design whereby the data were collected at a single point in time from a sample selected to represent a larger population. The survey consisted of asking questions to a representative sample of rural women in September 2016.

3.3 Sample Size and Sampling Procedure

The respondents of the study mainly involved women. All categories of women such as single, married, widowed and divorced are included as respondents aged 15 and above. During this time, the women are suffering from various diseases. These respondents are selected following the simple random sampling

procedures, which are interviewed during the data collection period. A total of 120 respondents were selected for interview for the study. Among them, 60 respondents are from the village of Joybhoga (vill-1), and the other 60 respondents are from Baoitona (vill-2).

3.4 Techniques of Data Collection

For the collection of data, the researcher has used a cross-sectional approach, and primary data were collected with face to face interview method using a well-structured questionnaire with both open and closed-ended question items based on the research questions inherent in the research objectives. To test the accuracy of the questionnaire, the researcher made pilot surveys. Then the researcher himself went to the respondents to take interviews. The questionnaire is prepared with great care so that accurate results can be achieved for the study. In this way, a total of 120 respondents have been interviewed.

3.5 Data Processing and Analysis

The collected data were entered into the software SPSS version 15.0 and STATA 11, and they were organised systematically. Data were analysed in three steps. First, the pattern of common diseases and social and environmental factors responsible for the rural women of the study area were analysed using descriptive statistics of SPSS version 15.0 software. Second, to find the determinants of the poor health status of the participant respondents, the binary logistic regression model was used. To estimate the regression equation, the maximum likelihood estimation (MLE) method was applied. It was done using STATA 11 software.

3.6 Empirical Model for the study

The health status of rural women is deplorable. Their age, household size, family's monthly income, occupation, number of diseases, number of doctor visits affect their health status. We can show the effects of their socio-economic characteristics on their health status by an empirical model. In these studies, the regression model estimates the relationship between health status (poor health status) and its determinant factors. The logistic regression model is used to identify the causal effect of determinant factors on the poor health status of rural women. The explanatory variables included in the model are age, household size, family's monthly income, occupation, number of diseases in the previous year, and number of visits to a doctor in the previous year. The logistic regression model is used in this study because the dependent variable (health status of respondents) is binary or dichotomous. It assumes the value 1 when the respondent has poor health and 0 when the respondent has good health.

Let p_i denote the probability of a respondent being in poor health. We assume that p_i is a Bernoulli variable, and its distribution depends on the vector of predictors x so that

$$P_i(x) = \frac{e^{\beta_0 + \beta X}}{1 + e^{\beta_0 + \beta X}}$$

$$P_i(x) = \frac{e^{(\beta_0 + \beta X)}}{1 + e^{(\beta_0 + \beta X)}}$$

Where β is a row vector and β_0 is a scalar. The logit function to be estimated is written as

$$\ln \frac{p_i}{1-p_i} = \beta_0 + \beta_i X_i$$

The logit variable is the natural log of the odds of the respondent falling into poor health. The logit model is given below, in which several factors are considered as the explanatory variables.

The model is implicitly stated as follows:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6) \dots \dots \dots (1)$$

Where, Y = Health Status (1 = poor health, 0 = good health)

X_1 = Age

X_2 = Household size

X_3 = Family's monthly income (Tk. Per month)

X_4 = Occupation (1= House wife and 0= otherwise)

X_5 = Number of diseases in previous year

X_6 = Number of visit to doctor in previous year

Rural women's poor health depends on demographic and socio-economic factors. In the above model, based on the explanatory variables, we show the influence of these factors on poor health.

3.7 Specification and estimation of the Model in the Present Study

The above model needs to be appropriately specified for the empirical investigation of the present study. It will help determine the positive and negative impact of the determinants on rural women's health status. We have used primary data to test the impact of the determinant factors of the rural women's poor health status. We have taken a logistic regression model to study the qualitative conclusion.

The model is explicitly stated as follows:

$$Li = \ln \frac{P_i}{1-P_i} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + u_i, \dots \dots \dots (2)$$

Where L_i is for the logit for the respondent and P_i is the probability of the i th women falling poor health. β_1 to β_6 are coefficients to be estimated, β_0 is the intercept term, and u_i is the stochastic error term.

The functional relationship between the dependent variable in terms of health status and the considered explanatory variables in terms of socio-economic characteristics such as age, household size, family's monthly income, occupation, the number of diseases, and the number of doctor visits are specified in the earlier section in equation (2) as a logistic regression function. The estimation of equation (2) is performed by using the maximum likelihood estimation procedure.

4. Data Description

For the research, study data has been collected directly from 120 respondents from two sample villages. Data has been collected to get information on the variables and other relevant aspects of the research. It is observed that there have been significant variations in the values of the variables across villages and respondents.

4.2 Common Diseases of the Study Area

The common diseases reported by women from the study area are cold disease, diarrhoea, menstrual and reproductive tract infection (RTI), malnutrition, waist ache, skin allergy, hypertension, hypotension, acidity, eye disease, asthma.

4.3 Pattern of Common Diseases and Social and Environmental Factors Responsible for the Diseases

The lack of safe water supply and basic sanitation facilities coupled with malnutrition, poor and inadequate housing, and other socio-economic factors, particularly poverty, have resulted in high morbidity and mortality within communities in the rural areas of Bangladesh (Aziz et al., 1990, Koenig et al.2003).The present study attempt to find the pattern of common diseases and social and environmental factors responsible for the diseases

Table 4.2: Number and Percentage of Respondents by the Pattern of Common Diseases

Pattern of Common Diseases	Number of Respondents	(%) of total
Cold Disease	70	58.3
Diarrheal	11	9.2
Menstrual and Reproductive Tract Infection (RTI)	15	12.5
Malnutrition	42	35.0
Waist Ache	30	25.0
Skin Allergy	19	15.83
Acidity	59	49.2
Hypertension	18	15.0
Hypotension	15	12.5
Eye Disease	13	10.83
Asthma	17	14.17

Source: Field Survey, September 2016

The pattern of common diseases as found in the survey shows the following:

Cold Disease: Cold Disease is the most common health problem as reported by the study area. From the survey, it is recorded that the highest number of respondents, 58.3%, found suffering from cold disease frequently, and they do not take proper treatment for the disease as the respondent mentioned that they do not treat cold disease as any disease or health problem instead they consider the causing of cold disease as a simple matter. According to the (V.H.W) Pharmacist, bathing in river water is the leading cause of cold diseases of rural women. From the field survey, it is found that 43.3% of rural women use river water for bathing.

Diarrheal Diseases: About 9.2% women of in the study area reported that they commonly suffer from diarrhoea. Diarrheal is a water-borne disease, and women are more involved with water use and sanitation than men. In the study area, the majority of the women are illiterate, and they are not aware of their hygiene. The use of unsafe water and inadequate sanitation facilities attribute diarrhoea diseases to the women of rural areas. The survey found that 94.2% of respondents do not wash their hands properly after defecation, and only 5.8 % found to practice hygiene rules. Like other remote rural areas of Bangladesh, there found that only 45.8% has hygienic-sanitary latrines in the study area, and 3.3% has no latrine. The respondent with no toilet facilities in the study area often gets off defecation in the open spaces. The lack of sanitary latrines and hygienic toilet practices are strongly related to diarrhoea diseases. In the study area, 43.3% of respondents use river water for bathing, washing, animal bathing, and other purposes. The field survey shows that anthropogenic causes such as domestic uses, cloth washing, throwing human and animal excreta, and animal bathing purposes are significant factors of water pollution in the river area. At that time,

respondents mainly were affected by water-borne diseases (diarrhoea, cholera) for using the polluted water.

Menstrual Problem and Reproductive Tract Infection (RTI): Menstrual problems and RTI of women are less talked about in Bangladesh. However, about 12.5% of surveyed women have mentioned the diseases which they are facing. At the time of menstruation, lower abdominal pain accompanied by heavy bleeding, white discharges accompanied by abdominal cramps, irregularity of menstruation is some common menstrual problems in the rural areas, as mentioned by the respondents. From the study, it was disclosed that almost all the adolescent girls and women in the rural areas use rags for protection during menstruation. These rags are not washed well or never appropriately dried in the sun because of a lack of private places. As a result, they often get mildew or fungus leading to reproductive tract infection. No one of the respondents found in the study area to use sanitary method. These unhygienic practices during menstruation may be the consequences of reproductive tract infection in the study area.

Malnutrition: About 35% women of in the study area reported that they commonly suffer from malnutrition. The number is also high regarding the total disease burden of respondents in the study area. In Bangladesh, women get a lesser share in food distribution, especially protein and other health and nutrition-related services, than men. In the study area, the calorie intake of females averaged only 879.41k.cal. The reduced calorie intake for women was also reflected in a higher incidence of malnutrition. The consequences of undernutrition are serious, long-term, intergenerational and mostly irrevocable, resulting in increased morbidity and mortality, increased disease burden, and decreased IQ, physical capacity, and productivity. All of these have adverse effects on the income and economic growth of the country (HSB 2011).

Waist Ache: Another typical health problem is waist ache found among the women of the study area. According to the data collected from the study area, 25.0% of respondents found suffering from waist aches. Poor level of nutrition, illiteracy among people, vitamin deficiency, and severe malnutrition is the probable leading causes of waist ache of rural women.

Skin Allergy: Lack of physical cleanliness, unhygienic living and personal attention widespread skin allergy found among the different women in the study area. About 15.83% of the respondents women are suffering from skin allergies. According to the (V.H.W) Pharmacist, more than 80% of women suffer from skin diseases. Poor sanitation, lack of cleanliness and proper bathing and clothing practices, living in the crowd and poorly ventilated houses, using unsafe and dirty water for bathing, washing clothes, washing utensils may be the prime causes of widespread women skin allergy in the study area.

Acidity: About half, 49.2% women of the study area reported that they commonly suffer from acidity. The number is high regarding the total disease burden of respondents in the study area. In the study area, irregular intake of food and more unhygienic food are the leading causes of acidity of rural women.

Hypertension: About 15.0% women of in the study area reported that they commonly suffer from hypertension. Hypertension is a common cardiovascular disease. It is as frequent in developing countries as industrialised and developed ones (Park and Park, 1985, 377). One of the major causes of an overworked heart is high blood pressure. By 'Blood Pressure' we mean, the pressure exerted by the blood on the walls of blood vessels. If this pressure is abnormally high or beyond the normal limits, the condition is referred to as high blood pressure or hypertension (Bhave, Deodhar and Bhave, 1995, 167). Hypertension is an insidious disease and is a significant risk factor for Coronary Heart Disease (C.H.D.) and is essential in the pathogenesis of stroke, congestive heart failure and renal disease. Community studies and clinical observations have suggested that hypertension is associated with several factors such as heredity, weight, salt intake, stress and strain of life and physical inactivity. As weight increases, so does the prevalence of hypertension.

Hypotension: It was found that an average of 12.5% of respondents suffering from hypotension in the study area. Hypotension is a physiological ailment. It can be imagined that the history of hypotension may be as long as the human beings. Blood pressure levels below 90 mm Hg. are usually considered as hypotension in adults. However, there could be some persons whose blood pressure persistently remains below 90mm. Hg. (Systolic). Moreover, who are healthy. Hypotension is an essential and early component of shock. Chronic bleeding and side effects of drugs are considered the leading causes of hypotension.

Eye Disease: Another common health problem is eye disease found among the women of the study area. According to the data collected from the study area, on average, 10.83% of respondents were suffering from several kinds of eye disorders. The main types of eye complications found were night blindness, glaucoma and cataract. Poor level of nutrition, illiteracy among people, vitamin deficiency, and severe malnutrition may be the leading causes of eye diseases of rural women (Paul, 2014). Again using agricultural residues, biomass fuels for cooking, and their smoke from the hearth may contribute to eye infection of household women in the rural areas. From the survey data, only 1.7% of respondents use gas as cooking fuel and the rest of 98.3% use wood, straws, dung cakes.

Respiratory Diseases: It was found that an average of 14.17% of respondents had asthma in the study area. Housing factors can play a significant

role in respiratory health and greatly exacerbate or increase susceptibility to asthma, allergies, and other respiratory illnesses. The study observed that in most houses, 70% are tin sheets that produce many fibre particles in the study area. Thus spending a long time in these types of houses can make respondent's hypersensitive to these particles. Besides, these houses do not protect them from the cold waves during winter and heat waves during summer, which profoundly impacts asthma-related problems.

5. Results and Discussion

5.1 Determinants of Poor Health Status of Rural Women

Rural women are suffering from poor health status. Some factors impact their health. So it is essential to investigate the factors that determine the poor health status of rural women. In this section, the Logistic regression model is performed to identify the decisive factors determining rural women's poor health status.

Estimation results for the logit model are provided in Table 5.1. For estimation, the logistic regression model for ungrouped data STATA 11 employs the Maximum Likelihood Method, which is generally an effective sample estimation method. As it is mentioned earlier, the whole data set fitted to the regression model. It serves to understand the overall impact of different socio-economic variables on the health status of rural women. To perform the logistic regression, we assume that the dependent variable (Health Status) is measured by the presence or absence of life-threatening disease. As was noted earlier, conventional tests were performed to check the diagnostic exactness of the data and the model.

Table 5.1 shows that most of the explanatory variables turned to be statistically significant such as 'age of respondents' (at 1%), 'household size of respondents' (at 10%), 'family's monthly income of respondents' (at 10%), 'the number of disease of respondents' (at 1%), 'number of visit to doctor (at 5%)'. All these variables exhibited hypothesised signs. On the other hand, variable like 'occupation of respondents' is not significant to explain the poor health status of rural women.

The respondent's age is significant (at a 1% level of significance) determinant of a respondent being in a 'poor health status' category. The sign of coefficient ($\beta = .09409$) is also positive, implying that older women have a higher probability of being in poor health. The odds ratio favouring respondents being poor health status increases by a factor of 1.0986 as the average age of respondents is increased by one year. This finding is consistent with earlier studies done by (Paul A Bourne et al., 2008, Paige Lynn Miller, 2005) and is inconsistent with earlier

Table 5.1: Logistic Regression Estimation Result for Determinants of Poor Health Status of Rural Women

Explanatory Variables	Coefficients	Odds ratio	Std. Err.	z	p>z
Age	.09409***	1.0986	.03063	3.07	0.002
Household Size	.38378*	1.4678	.22154	1.73	0.083
Family's Monthly Income	-.00007*	.9999	.00003	-1.87	0.061
Occupation	-.61584	.5401	.66544	-0.93	0.355
Number of Disease	.83962***	2.3154	.28174	2.98	0.003
Number of visit to doctor	.23890**	1.2698	.11533	2.07	0.038
Constant	-5.200347		1.501515	-3.46	0.001

Number of Obs. = 120; LR chi2 (6) = 63.26; Prob.> chi2 = 0.0000

Pseudo R2 = 0.4180; Log likelihood = -44.038719

Note: ***, ** and * indicate 1%, 5% and 10% significant level

Source: Author's Estimation, September 2016

studies (Ahmed Mohammad Munsur et al., 2010). One of the possible reasons behind this finding is that with the increase in age, the number of life-threatening diseases also increases.

The household size of the respondent is a significant (at 10% level of significance) determinant of a respondent being in a 'poor health status' category. The sign of coefficient ($\beta = .38378$) is positive, implying that the respondent with a large household size has a higher probability of being poor health status than the small household size. The odds ratio in favour of the respondent being poor health status increases by a factor of 1.4678 as the average household size of the respondent increases by 1 unit. This finding is also consistent with the finding of earlier studies (Paul A, 2008). One of the reasons behind this finding may be that when the household size of respondents increases, they ignore their health.

The family's monthly income of respondents is significant at a 10% level of significance. The sign of coefficient ($\beta = -.00007$) is negative, which implies that the probability of respondents being poor health status decrease with an increase in the family's monthly income level of respondents. The log of odds in favour of respondents being poor health status decreases by .00007 units as the average monthly income increases by 1 unit. For a unit (Tk.1) increase in the level of family's monthly income of respondents, the odds ratio in favour of respondent being poor health status decreases by factor .9999. The reason may be that the families with higher monthly incomes are more conscious about the women of their families. This finding is consistent with the findings of earlier studies (Paul 2008, Munsur et al., 2010).

The number of diseases of the respondent is a significant (at 1% level of significance) determinant of a respondent being in a 'poor health status' category.

The sign of coefficient ($\beta=.83962$) is also positive, implying that the women with a higher number of the disease have a higher probability of being poor health status. The odds ratio in favour of respondents being poor health status increases by factor 2.3154 as the average number of diseases of the respondent is increased by 1 unit. This finding is consistent with earlier studies done by (Paul 2008) and is inconsistent with earlier studies (Ahmed Mohammad Munsur et al., 2010). One of the reasons behind this finding could be that with the increase in number of disease, the number of life-threatening diseases also increases.

The number of visits to the doctor of respondents is significant at a 5% level of significance. The sign of coefficient ($\beta=.23890$) is positive, which implies that the probability of respondents being poor health status increases with an increase in the number of visits to the doctor of respondents. The log of odds in favour of respondents being poor health status increases by .23890 units as the average number of visits to doctor increases by 1 unit. For a unit increase in the number of doctor visits, the odds ratio favouring respondents being poor health status increases by a factor of 1.2698. The reason could be that the number of visits to the doctor of the respondent increases when their health conditions are not so well. This finding is inconsistent with the findings of earlier studies done by (Paul 2008).

The dummy variable 'occupation of respondents' (1=House wife, 0= Others) also influences poor health status negatively. It explains that if a woman is a house wife, the probability of respondents being poor health status decreases. However, it is not significant in explaining the poor health status of rural women of selected villages. This finding is inconsistent with the finding of earlier studies done by (Ahmed Mohammad Munsur et al., 2010), where working respondents are 0.61 times less likely to report unhealthy than those who are not working and have a significant impact on health status.

One possible reason for that their little physical activities helps them to remain well. Indeed, physical activity plays a central role in preventing and managing chronic disease (Cyarto et al., 2004), and physical activity is identified as a leading cause of disability among older adults (Buchner, 1997).

From the maximum likelihood estimates of the model, the Pseudo R² is 0.4180, which states that about 42% of the likelihood of a respondent being poor health status is strongly explained by the explanatory variables. To test the overall significance of the model, we have used the Likelihood Ratio (LR) test in place of the F test. In this case, the results also showed that the overall logistic model was significantly based on chi-square ((Prob. > chi² = 0.0000). The explanatory variables are relevant in analysing the determinants of the poor health status of rural women.

The marginal effects report of logistic regression provides the probability that a respondent will fall in poor health status. Table 5.2 provides the probability estimation for the likelihood of poor health status of respondents given the statistically significant variables: 'age', 'household size', 'family's monthly income', 'number of diseases' and 'number of doctor visits.

Table 5.2: Marginal Effects of the Explanatory Variables Used to Estimate Logistic Regression

Explanatory Variables	dy/dx	Std. Err.	z	p>z	x
Age	.01022***	.00324	3.16	0.002	36.3917
Household Size	.04169*	.02464	1.69	0.091	4.14167
Family's Monthly Income	-7.67e-06*	.00000	-1.71	0.088	12672.7
Occupation	-.06055	.05742	-1.05	0.292	.725
Number of Disease	.09122***	.03144	2.90	0.004	3.325
Number of visit to doctor	.02595**	.01239	2.09	0.036	2.89167
Predicted Probability = 0.87596834					
Number of Obs. = 120; LR chi2 (6) = 63.26; Prob.> chi2 = 0.0000					
Pseudo R2 = 0.4180; Log likelihood = -44.038719					

Source: Author's Estimation, September 2016

The marginal effect report of the logistic regression in Table 5.2 indicates that there is a probability of 1% that a respondent will fall in poor health status if her age increases, at mean value, by one year. The marginal effect shows that there is a probability of approximately 4.2% that a respondent will fall in poor health status if her household size increases, at a mean of one additional family member. The marginal effect report of the logistic regression in Table 5.2 also shows that if a respondent family's monthly income increases by one taka, then there are 0.0007% likelihoods that she would not fall in poor health status since the coefficient of this variable is negative.

Further, the marginal effect report of the logistic regression indicates that there is a probability of 9.1% that a respondent will fall in poor health status if her number of diseases increases, at mean value, by one unit. Finally, the marginal effect shows that there is the probability of approximately 2.6% that a respondent will fall in poor health status if her number of visits to the doctor increases at mean value by one unit.

6. Conclusions and Recommendations

This study finds the common diseases pattern and the social and environmental factors responsible for the disease-causing of rural women in the study area. It has also estimated the significant determinants of the poor health status of rural women of the study area. The study arrived at several findings for these we can suggest some policy recommendations.

The women living in the rural area of Bogra district are experiencing poor health status and suffering from various diseases. Among the common diseases, the most common diseases are cold disease, malnutrition and acidity. Among the total respondents, the percentages of respondents suffering from these most common diseases are 58.3, 35.0 and 49.2 respectively. The respondents of village-1 are more suffered by cold disease and acidity, and the respondents of village-2 are more malnutrition. Bathing in river water is possibly the leading cause of cold diseases of the women of village-1. Irregular and unhealthy food consumption could be the leading cause of acidity of the women of that village. The reduced calorie intake for women of village-2 may be the leading cause of a higher incidence of malnutrition.

The possible main reason for diarrhoeal diseases and skin allergy is polluted river water for bathing and washing utilities. Poor housing systems and unhygienic sanitary systems may also cause these diseases. Unhygienic practices during menstruation may be the consequence of reproductive tract infection in the study area. Using agricultural residues, biomass fuels for cooking, and smoke from the hearth may contribute to the eye infection of household women in rural areas. The source of fire for cooking and poor housing system may also be the causes of asthma problems. Age of respondents, household size of respondents, family's monthly income of respondents, number of diseases and number of visits to the doctor of respondents are found to have a significant impact on the poor health status of rural women of the study area.

Therefore, the study recommends that safe housing and sanitation programmes for the rural people should be adequately made, and use of gas as a source of cooking fire should be increased instead of wood, straws, and other sources of cooking fire. The study also recommends that government reasonable health status efforts, especially for rural women, should focus on appointing more female health workers, making proactive policy in expanding income generating activities, strengthening supports for education opportunities, and family planning. Further, the study recommends that rural women participate in economic activities and contribute to increasing per capita income, so government should campaign for health awareness with socio-economic development that could change the scenario rapidly. Also, the government should introduce compulsory education for rural girl children and ensure social justice and rights issues, especially for women.

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The Ethical Dilemmas of Representing Others in Empirical Research: Gender, Power and Accountability

Fatema Rouson Jahan*

Abstract

This article contributes to the academic debate on the ethical difficulties of representing others in empirical research. While speaking for others, especially women, is essential for bringing the unheard voice, it is not an innocent process. Representing others involves the ethical dilemmas of marginality, victimhood and agency, gender, power and accountability, identification and difference, misrepresentation, under-representation and overrepresentation. With a focus on Feminist Research Methodology, the paper argues that the ethical problems can be dealt with through the understanding of reflexivity and acknowledging the contribution of others in the research process. While reflexivity might not resolve the ethical concerns completely, it helps the researchers be more critical and thoughtful of depicting others' lives in empirical research.

JEL Classification B55 · I31 · J16 · O15 · R2

Keywords Ethics · Gender · Agency · Feminist Research Methodology · Power · Accountability

Introduction

I chose to publish the chapter using a pseudonym for myself. My use of a pseudonym is, therefore, not to protect my own identity but, rather (and I hope that the weighty irony here is not lost on any body), to protect the identity of the rapist. (Moreno, 1995: 248)

* Assistant Professor, Department of Women and Gender Studies, University of Dhaka, Dhaka, Bangladesh. E-mail: f.r.jahan@du.ac.bd

The quote stated above is taken from the last lines of Eva Moreno's paper on 'Rape in the Field: reflections from a survivor'. The author used a pseudonym for the rapist, her male research assistant, in the paper. It was an irony that the use of anonymity was not sufficient to hide the identity of the rapist. Therefore, the publishers requested the author to edit her writing and delete some information to make it impossible to identify the rapist. Using a pseudonym for the participant was not enough, so the author subsequently decided to go anonymous also for herself. The quote reflects the ethical dilemmas of representing others in a research process, one of the most central and debated issues in academic disciplines, Feminist school and anthropology, for example.

The primary aim behind the representation of others in research studies was to make the unheard heard and the unseen seen. However, ethical difficulties occur when conflict arises between the desire to 'benefit others' and 'to be benefited' through representation. Representing others is not an innocent process. It brings forth the question of who speaks and who is spoken for. It involves how gender, power, race, class and sexuality are entangled with each other. John Silk critically examined the representation of the Third World by mass media and pointed out that the representation, first, encouraged the notion of third world dependence upon the west, ignoring western dependence upon 'third world' for raw materials (Silk, 2000). Second, it represented people from the developing world as passive victims, which stripped them of their dignity in the interest of 'news values', rather than as active individuals who should be enabled to help themselves. Moreover, finally, there is an insoluble ethical dilemma for a relief agency, Oxfam, Christian Aid, for example. As Silk put it: 'However, NGOs' growth in profile and income is still dependent upon live and graphic television reports of suffering people in places like Ethiopia, Somalia, Rwanda and Kosovo' (Silk, 2000:9).

Representation is particularly problematic for marginal women (Mohanty, 1991; Spivak, 1988). Spivak (2002) critically analysed the representation of Third World women in academia and refuted any noble and altruistic claims made by the academic scholars: 'Knowledge is always imbricated with power so that getting to know (or 'discursively framing') the Third World is also about getting to discipline and monitor it, to have a more manageable Other...' (Spivak, 2002:22 quoted in Kapoor, 2004: 632).

This paper aims to contribute to the academic debate on the ethical problems of representing others in empirical research. It raises several questions: What is ethics? What are the relations between ethics and others? What are the ethical concerns of representation? The rest of the paper is divided into two main sections. The first section defines three conceptual tools: Representation, Ethics

and Others. In the second and the last sections, I analyse how representing others is burdened with ethical problems related to marginality, victimhood and agency, gender, power, hierarchy and accountability, identification and difference, self-representation, misrepresentation, and under- and overrepresentation. I try to understand the ethical dilemmas of representation through my own research experience. With a focus on Feminist Research Methodology, the paper concludes by arguing that the ethical difficulties in empirical research must be dealt with through incorporating reflexivity and acknowledging the contribution of others in the research process.

Conceptual Framework: Representation, Ethics and Others

The term 'representation' connotes a dual meaning. It can be used both in representation as 'speaking for' as in politics and representation as 'representation' as in art or philosophy. According to Spivak, a theory of representation points, on the one hand, to the domain of ideology, meaning, and subjectivity, and, on the other hand, to the domain of politics, the state, and the law' (Spivak, 1988: 271),

The meaning of 'other' in representation often entails exclusion. 'The other is what I myself am not' (Levinas, 1987:83 quoted in Ahmed, 1998: 60). Jean Carabine (1996) argues that "a focus on Other is problematic because it tends to shift the debate back to a preoccupation with binary oppositions and runs the risk of locking difference... up in the oppositional categories of oppressor and oppressed" (Carabine, 1996:68 quoted in Padwell, 2002: 80). Padwell (2002) deconstructs the category of 'others' by exploring how self and others are mutually constituted and the researcher and subject might assume the position of others simultaneously during the research process.

The use of 'ethics' can be traced back to Aristotle, who defined ethics based on virtues and character. Ethics was also used in the Kantian theory, which defined morality as 'a rational matter'. For Michael Foucault, ethics is a modality of power that 'permits individuals to effect by their own means or with the help of others, a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being' in order to transform themselves into the willing subjects of a particular moral discourse' (Foucault, 1997: 225 quoted in Mahmood, 2005: 28).

There is a connection between ethics and others. The term 'ethics', derived from the Greek word *ethos* meaning character and dwelling, indicates that ethics 'is about being positioned by, and taking a position in relation to, others', or about the 'study and practice of that which constitutes one's habitat' (Diprose, 1994: 18-19 quoted in Ahmed, 1998: 58). Similarly, Levinas in 'Time and its Other' points out that ethics is not understood in terms of the normative realm of morality, but

the primordial ethical experience embodied in the face-to-face encounter with the Other. One has an endless obligation to the other (Levinas, 1987 quoted in Ahmed, 1998).

Ethical Dilemmas in Empirical Research

In this section, I try to understand the connection between representation, ethics and others in research by deriving examples from my own empirical research. The research studies were part of the fieldwork I conducted for my Undergrad, Masters and PhD thesis paper.

Marginality, Victimhood and Agency in Representation

Representing the 'other' just as the victim or as an agent is problematic in either way. Mohanty problematised the monolithic and singular representation of Third World women as 'poor, uneducated, domestic, victimised, and marginalised which robs them of their historical and political agency' (Mohanty, 1991:56-72). In contrast to the portrayal of others as victims, celebrating the inherent strengths, voice, agency, and tradition of others often results in romanticising others and using our representation of them to delineate 'our' vision of good life (Wilkinson and Kitzinger 1996). This paradox is reflected in a better way in Mohanty's words: 'It is when "women of Africa" becomes a homogenous sociological grouping characterised by common dependencies or powerlessness (or even strengths) that problems arise-we say too little and too much at the same time' (Mohanty, 1991:59).

While doing fieldwork for my PhD thesis, I was perplexed by the thought of how to represent the research participants in my thesis. On the one hand, I aimed to learn more about the lives of women factory workers beyond their homogeneous images as producers and victims of capitalism in academia. I was interested in studying how women factory workers in Bangladesh practice agencies through their clothing consumption practices. On the other hand, I was disturbed by the ongoing news in the media about the harsh working conditions, building collapsing and the fire accident in the factory and the death of the factory workers at an alarming rate. Even though I recognised the existence of oppressive conditions in the lives of women factory workers, I was worried whether my thesis fell into the danger of romanticising agency by focusing on consumption, instead of production, as a critical lens to explore their lives.

Gender, Power and Hierarchy in Representation

Alcoff (1995) argued that the rituals of speaking are politically constituted by power relations of domination, exploitation, and subordination. Reay (1996)

explained how the researcher could exercise power through the process of interpretation. She interviewed a middle-class woman called Alice who described her own schooling in this way: 'I quite enjoyed primary school ... Most of the children were from mining families, and so they were seen as dirty, smelly children...' (Ibid: 68). Being a coal miner's daughter herself, Reay found herself powerless when her research participants Alice criticised coal miner's children as dirty in her interview. Reay shared her anxieties while interpreting Alice's interview: 'How do I interpret a text in which I am so clearly positioned as a coal miner's daughter as 'the other'? However, now I have the power to decide both whether she should have a voice in my text and how that voice should be framed' (Reay, 1996:69).

However, understanding the power in the binary sense where power is vested only in the researcher's hand can be misleading. Although researchers control the research process and interpret the information, they can also be vulnerable, manipulation and betrayal (Kirsch, 1999). Moreno (1995) examined how women anthropologists themselves are gendered and prone to sexual violence in the research field. She illustrated her own experience of being raped by her male research assistant while working in Ethiopia to collect her dissertation data. She argues that rape is used as a tool by men to maintain gender order, to establish male domination and restrict women's movement. Being brought up in the homogenous Swedish culture, Moreno faced problems in conducting fieldwork in a complex, heterogeneous Ethiopian society. The conflict occurred when she did not conform to the male-dominant hierarchy and the existing gender order of the Ethiopian society. She appointed a male research assistant, Yunus, to support her in the fieldwork. The power and the authority she held as an independent, educated, foreign researcher and employer put Yunus's masculinity in question. Moreno is perceived more as a sex object and less as an anthropologist without any male guardian around. Yunus wanted her to be his lover. When she refused to accept his offer, Yunus took revenge by raping her. Moreno described her horrific experience in the research field as: 'The rape had reversed a hierarchy where I had the dominant position as researcher, professional, and foreigner until then. Now I was just a woman, looking to other women around me for guidance, safety, and advice' (Moreno, 1995:244).

I also experienced the feeling of powerlessness during my fieldwork for collecting data for my Masters Dissertation. One of my interviewees suddenly disagreed with talking at the last moment, although she consented initially. I tried to convince her by using our similar national and religious identities. I told her: "I thought that as a Bangladeshi Muslim woman, you would help me out". After I requested her, she finally agreed to sit for the interview. However, she replied: 'I

told you I have been very busy. And it has nothing to do with being Muslim, Does it? My address is... Come at 12 pm... Use a map. Don't be late'.

On the one hand, I might be exercising power and being manipulative as a researcher by using our similar identity. On the other hand, my interviewee refuted our similar identity and exercised power by continually changing her decision to participate in my research study. Therefore, it is problematic to believe that only researchers are entirely 'in power' and the participants are powerless (Mullassery, 2002). I found Grenz's (2005) definition of power very convincing. Grenz's (2005) focuses on different strands of power interwoven with one another rather than as a unified phenomenon owned either by the researcher or the researched.

Accountability and Responsibility

The ethical concerns bring the question of accountability and responsibility that looks at the effect of the research on the others and acknowledge the contribution of others in the research process. Alcoff (1995) argued that representations have real material effects. The practice of privileged persons speaking for or on behalf of less privileged persons has resulted (in many cases) in increasing or reinforcing the oppression of the group spoken for. It raises the question: 'can the researcher understand and represent the experiences of others without misrepresenting, misappropriating or distorting their reality?' (Kirsch, 1999: ix). The ethical concerns also bring a sense of responsibility of acknowledging what the researchers get from the others. How could ethnography survive 'if it stops assuming, appropriating, and representing the 'Other' and lets the Other be itself?' (Khare, 1992 quoted in Sullivan, 1996:98). About this quote, Sullivan said: 'If the other is the enabling condition of ethnographic research, I will argue, then an ethnography must be both an adequate account of the literate practices of others and accountable to those others' (Sullivan, 1996:98).

For writing my undergrad thesis paper, I carried out fieldwork in a slum area. I was, for the first time, studying and getting to know other cultures as a researcher. While interviewing the female slum dwellers, I encountered a few questions from them several times: 'What is our benefit by giving our time and providing information to you? Will we get money? Will it upgrade our status?' They told me that they were interviewed before, and their miseries were reported in the media. Their situation of poverty, nevertheless, remains the same. I had no accurate answers to their queries. I was more concerned with finishing my fieldwork, writing and submitting my thesis paper, getting good grades and publishing my work than helping these women. I could not but acknowledge that the less they gained from me, the more I learned and benefitted from them.

Difference and Identification

Representing 'other' entails the ambiguities of difference and identification. Should the researchers represent only the group they belong to, or should they celebrate the post-modern difference? The differences in location, social position and power between the researcher and the researched often affect the whole research process. Blackwood (1995) discussed how her sexual identity from the research subject impacted the research study. When she found her lesbian lover 'Dayan' in the research field, she confessed: 'Recognising that similarity between us, I was able to move into a space that was at once familiar and alien, to find security and compassion in something that was and was not 'lesbian'' (Ibid: 69). She expressed: 'The problem of feeling alien was intensified, however, because I was a lesbian in a heterosexual world' (Blackwood, 1995: 59).

However, a similar identity can often be disadvantageous for the research. Identifying oneself with the researched 'can result in a denial of the power feminist researchers exercise in selecting and interpreting data' (Reay, 1996: 57). Reay argued: 'there is a thin diving line between the understandings that similar experiences of respondents bring to the research process and the element of exploitation implicit in mixing up one's own personal history with very different working-class experience' (Reay, 1996:65). While similar identity provides more accessible access to the research field and allows for subjective involvement and closeness with the participants, it enhances the risk of manipulation and misrepresentation of data in ethnographic research. Being an insider also involves the possibility of bias that Bourdieu (1998:123-132) called 'scholastic biases' refer to the risks involved in the ethnographic research that permeates the researchers' personal experiences. I had to negotiate between the similar identity and difference and the power relationship between myself and the participants in my PhD research. While studying the clothing consumption practices of women factory workers, I found similarities between myself and the women workers in our nationality, religion and language. However, my social class and education had given me a privileged position that created a power relationship between myself and the female garment workers. There were also class distinctions and the interplay of power in what we wear. Even though we both wear salwar kameez and cover our head with a scarf, there were clear differences in our clothing choices in terms of the colour, design, and style of the salwar kameez we wear. Despite my attempt to wear minimal clothing and downplay my appearance, I could not deny the several occasions where the participants noticed my salwar kameez and indicated my affordability to buy more and better clothing than themselves.

Being an insider, I considered myself a feminist researcher whom Abu-Lughod (1991) termed as 'halfies'immigrant researchers, researching western academia in their native country. The dangers of being halfies are extreme as I was accountable both to the western academic scholars for the possible bias in the data on the one hand and responsible to my own community while presenting them to a western audience on the other hand. I was concerned about how I would represent women's clothing practices that have cultural and religious values. For example, I had to negotiate between becoming defensive about the veil as an insider and analysing the practice as an academic scholar.

Misrepresentation, Underrepresentation and Overrepresentation

Representing others often leads to misrepresentation, underrepresentation and overrepresentation of them. Spivak (1988:301) referred to the colonial representation of subaltern women as 'epistemic violence'. By using the term, 'White men saving brown women from brown men' she illustrated how there was a contrasting position between the dominant Hindu who encouraged the practice of 'Widow-sacrifice (sati) in the name of reward and the British ruler who attempted to abolish the practice of sati in the name of 'civilising mission' (Ibid: 294-301). According to Spivak (1988), the representation of Subaltern Hindu women, both by the Dominant Hindu and British ruler, is problematic as the widows' own voices remain unheard.

About the underrepresentation of Black women in mainstream art, Walker (1980) described her experience of going to an art exhibition of women painters. Walker asked a woman at the Brooklyn Museum: 'Are there no black women painters represented here?' A white woman simply replied: 'it is a women's exhibit!' (Walker, 1980:136 quoted in Min-ha, 1989:99-100). Walker argued that by excluding black women and continuing to speak on their behalf, white women were subjecting black women to the same kind of chauvinism they decried in patriarchal structures (Walker, 1980 quoted in Nako, 2001).

One of the examples of the overrepresentation of women was depicted by the micro-credit model of Bangladesh, which provided a loan to poor women. The model represented poor women as change agents who were best at repaying the loan. It further increased the burden on women's side to pay off the debt (Karim, 2008). The desire for the other as a heroine or hero gives an illusion by undermining subjective sovereignty (Spivak, 1988; Kapoor, 2004). It is, ultimately, another form of silencing of the subaltern (Kapoor, 2004).

One of the ways the misrepresentation, underrepresentation and overrepresentation could occur in the research study was through translation (Spivak, 1993). While interviewing the research participants for my Masters

dissertation, I found that all interviewees spoke Sylheti, a local dialect of the Sylhet division of Bangladesh and were quite different from the official Bengali language. Although I could speak Bengali, I was not very familiar with the local Sylheti accent. My research aim was to understand how two generations of Bangladeshi immigrant women practised agency in their lives. However, it was very challenging for me to translate the word 'agency' from English to Bengali and then Bengali to Sylheti to make the participants understand the word's meaning. It was also complicated to translate their understanding of agency from Sylheti to Bengali and then Bengali to the English language. Spivak (1993) stated the difficulties and lack of intimacy of translating non-European women's text into English text. She argued: 'We have to turn the other into something like the self in order to be ethical. To surrender in translation is more erotic than ethical. In that situation, the good-willing attitude "she is just like me" is not very helpful' (Spivak, 1993:183). The exact translation of agency from English to Bengali was 'institution', which I was not looking for in my research. Therefore, I translated the word 'agency' as 'decision-making capacity' and 'Empowerment' to get the meaning that I wanted in my study. To a greater extent, the translation was informed by my social position and my academic background. The process of translation, the restrictive nature of language, and my lack of expertise in the local colloquial certainly influenced how the women participants and their voices were represented in my research study.

Conclusion

The ethical problem of representing others lies in gender, power, marginality, difference and accountability. The scholars who consider speaking for others as unethical often search for the solution in speaking only for themselves. However, the strategy of speaking only for oneself is not only implausible but likely to lead to the reinscription of dominant relations of power (Padwell, 2002). It also means avoiding 'responsibility and accountability for my effects on others' (Alcoff, 1995:108). Kitzinger and Wilkinson (1997) argued that speaking for ourselves entails the problems of defining who exactly 'we' are, and second, of false universalising and imperialising tendencies and third, of continued silencing and exclusion of others. Research scholars also opined for collaboration with the participants who can design the interview questions, interpret data, and write the process. Collaborative research provides the space to break the boundary between the researcher and the research participants, between us and the others, to resolve the ethical dilemmas in research studies.

In contrast to the traditional social science research methods that value objectivity in the research process, Feminist Research Methodology signifies the

subjective experience, emotional attachment, and bias on the researcher's part as an integral part of the research (Letherby, 2003). Feminist knowledge is contextual and situated (Harding ed. 1987; Reinharz, 1992; Smith, 1987; Stanley and Wise, 1990). Feminist research raises the question of the positionality and biases of the researcher that can influence the data collection process and research outcome.

Feminist research has an emancipator goal that requires a scholar to speak on behalf of other women. Feminist scholars have developed a new research agenda to study women, for women and by women. They focused on women's experiences that have been misrepresented or omitted in the past. They talked about a topic that has previously been tabooed and silenced, such as sexual harassment. One way feminist researchers attempted to solve the ethical problems of research is through attaining reflexivity in the research process. Reflexivity connotes what knowledge would be produced and for whom. Reflexivity provides the space for negotiating the power relations over knowledge claim between the researcher and participants (Ramazanoğlu and Holland, 2002). It elucidates the researcher's social position and location, recognises his or her subjective bias, and acknowledges the contribution of others in the research process.

Feminist researchers' objective is not only to describe the experience of women's oppression and gender inequalities but to challenge it and take political action to change the condition of women and empower them. Therefore, they focus on reflexivity, which helps to keep the research project focused on the emancipator goal and allows the researchers to engage in political action to change policy and ends gender inequality. Reflexivity, however, might not solve the ethical dilemmas completely. It, an action concentration and an affective component, nevertheless, provides the opportunity to be more reflective, critical and thoughtful of the consequences of the research on the participants and the depiction of others' lives in the research process (Kirsch, 1999). By focusing on the emotional dimension of the research, reflexivity helps bring essential perspectives of the participants' lives that might go unheard of otherwise.

The ethical dilemmas of speaking for others should not make us pessimistic about doing empirical and qualitative research, which are still essential tools for understanding the complexities of other cultures, communities and lived experiences. Instead, it is crucial to learn and unlearn from the ethical dilemmas and the research experiences and use that knowledge for future research projects. Finally, the task of representing others should be justified through its practical interventions. According to Sullivan (1996:98), "As we seek to understand and render the lived experiences of others, our research should ultimately aim to benefit those whose voices, texts, and circumstances make such understanding possible".

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Example

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Full reference:

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Reference list:

Ministry of Health. (2014). Ebola: Information for the public. Retrieved from <http://www.health.govt.nz/your-health/conditions-and-treatments/diseases-and-illnesses/ebola-information-public>

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In-text citation:

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Conference Paper

Reference list:

Williams, J., & Seary, K. (2010). Bridging the divide: Scaffolding the learning experiences of the mature age student. In J. Terrell (Ed.), *Making the links: Learning, teaching and high-quality student outcomes*. Proceedings of the 9th Conference of the New Zealand Association of Bridging Educators (pp. 104-116). Wellington, New Zealand. In-text citation: (Williams & Seary, 2010).

Conference paper (online)

Reference list:

Cannan, J. (2008). Using practice-based learning at a dual-sector tertiary institution: A discussion of current practice. In R. K. Coll, & K. Hoskyn (Eds.), *Working together: Putting the cooperative into cooperative education*. Conference proceedings of the New Zealand Association for Cooperative Education, New Plymouth, New Zealand. Retrieved from http://www.nzace.ac.nz/conferences/papers/Proceedings_2008.pdf

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Reference List:

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In-text citation:

(Matthews, 2011).

Newspaper article (no author)

Reference list:

Little blue penguins homeward bound. (2011, November 23). *Manawatu Standard*, p. 5.

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Shorten the title and enclose it in quotation marks. ("Little blue penguins", 2011).

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Bangladesh Economic Association

4/C, Eskaton Garden Road

Dhaka-1000, Bangladesh

Tel : 880-02-22225996

E-mail : bea.dhaka@gmail.com

Website : bea-bd.org