Essays on Empowering Women with Resources: Reflection on Women's Autonomy and Intimate Partner Violence in Bangladesh

Doctor of Philosophy

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Dedication

To my parent, ***Dr. Anwar Hossain*** and ***Johora Nasima*** and brother ***Jubair Azaz***, who loved me unconditionally and supported me in every step of life. They stood by me through every pain and struggle with their unwavering faith even when I failed.

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Acronyms

BBS- Bangladesh Bureau of Statistics
CCT- Conditional Cash Transfers
DHS- Demographic and Health Survey
DID- Difference in Difference
FSSSP- Female Secondary Scholl Stipend Programme
HH- Household
IGA- Income Generation Activities
IPV- Intimate Partner Violence
IR- Individual Recode
IV- Instrument Variable
MDG- Millennium Development Goals
NGO - Non-Government Organisation
OLS - Ordinary Least Squares
PCA- Principal Component Analysis
PSU- Primary Sample Units
RMG- Ready-made Garment
SDG- Sustainable Development Goals
SME - Small and Medium Enterprises
UN- United Nations
WHO - World Health Organization
2SLS- Two Stage Least Squares

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Chapter 1

Introduction to Thesis

1.1 Introduction

Throughout history, women across the globe have faced various vulnerabilities, primarily stemming from factors such as limited access to resources, financial dependence, inadequate education, and restricted employment opportunities. These challenges have been exacerbated by prevailing socio-economic and gender disparities. In particular, the patriarchal framework has played a significant role in hindering women's empowerment, with South Asia being more prominently affected (Hossain et al., 2019; Samarakoon & Parinduri, 2015). In this region, the societal gender construct has long confined women to subservient roles within the realms of marriage, household, community, and society. Indeed, despite constitutional affirmations of gender equality, state legislations and institutions continue to reinforce gender subordination and dependence (Alim, 2009). In fact, the social structure of gender relations that results in the subordination of women within the family, class, caste, religion, or society has received insufficient attention (Sharma & Das, 2021). Therefore, acknowledging the influence of societal and institutional contexts on women's lives is crucial for a comprehensive understanding of their persistent disempowerment and the complex dynamics of their empowerment process (Sraboni & Quisumbing, 2018). This emphasises the need to tackle structural barriers with social interventions to advance women's empowerment which, thus far in Bangladesh, has been frequently coupled with broader development agendas to enhancement household (HH) welfare (such as micro-credit-based employment, conditional cash transfer, skill development, family planning, health, and nutrition etc.)

The persistence of gender discrimination and unequal opportunities for women, particularly in developing nations, remains an enduring challenge. Moreover, the marginalised status of women, exacerbated by their subordinate socio-economic roles and constrained financial resilience, continues to be deeply entrenched, which is supported by prevailing patriarchal norms and institutions that perpetuate gender bias. This situation is particularly pronounced in South Asia, where women's access to resources, mobility, and decision-making remains constrained, perpetuating patterns of gender subordination (Cunningham et al., 2015; Jejeebhoy & Sathar, 2001). Bangladesh serves as a striking illustration, with deeply ingrained discriminatory practices such as child marriage, dowry, and gender-based violence reflecting these challenges (Reza & Yasmin, 2019). Furthermore, a recent report from UNDP highlights an alarming rate (54%) of physical and sexual violence against women (Liller, 2023). According to Sraboni and Quisumbing (2018), such vulnerability of women is exacerbated by their constrained opportunities and capacities, encompassing health and education, alongside a lack of autonomy. Moreover, women's well-being is intrinsically linked to their roles in managing households, nurturing children, and caring for the

elderly, underpinned by family welfare, financial independence, and mobility (Devine et al., 2008; Devine et al., 2019). Such dynamic links highlight the impact of institutional factors on women's empowerment, shaped by societal expectations and individual perceptions of well-being. In addressing these challenges, education and employment have emerged as powerful tools to challenge entrenched norms, bolster women's autonomy, and drive transformative change in the pursuit of gender equality.

Women's empowerment has been an end goal in its merit for a long time now and development interventions all over the world identified 'empowering women' as a pathway to improve other development indicators (poverty alleviation, child education, health, nutrition, and human capital). This insinuation of women's empowerment with greater social development is based on the evidence that women's disempowerment adversely influences aforementioned development indicators (Malapit et al., 2014; Malapit & Quisumbing, 2015; Quisumbing & Maluccio, 2003; Sraboni et al., 2014). In addition, it is empirically postulated that intra-household resource allocation is positively linked with the relative bargaining power of HH members, particularly alongside the subservient gender positions (De Brauw, 2015; Lee & Pocock, 2007; Quisumbing & Maluccio, 2003). Therefore, emphasis on transferring resources in favour of women and providing them with education and employment opportunities has been a focal point of development agendas worldwide in recent decades. Accordingly, the main aim of this thesis is to analyse the impact of access to resources on women's empowerment by utilising 'autonomy' as a predictive variable to quantify women's empowerment levels within a specific timeframe. 'Education' and 'employment' will be identified as the specific 'resources' under investigation in this context. To set the context, the opening chapter will focus on establishing a framework that explicates women's empowerment. This framework will highlight how empowerment is not static but rather a continuous process that evolves over time. It's important to note that this process differs for each woman due to contextual factors and the individual subjective availability of resources. Furthermore, the framework aims to identify different routes through which women's access to resources correlates with their enhanced agency, particularly to their power and control over decision-making within the HH domain. Acknowledging the abstract nature of empowerment, the study will employ a proxy measure—autonomy within different HH domains—to represent women's empowerment. After the discussion of the empowerment framework, this introductory section will provide a contextual country background for this research illustrating why Bangladesh makes a perfect case for studying women's empowerment amidst the awakening era of educating and employing women for greater social cause and economic advantage.

Then the second chapter will solely focus on the impacts of women's access to education on their empowerment where empowerment is a latent variable measured through four different autonomy variables including perception towards domestic violence. The second paper will analyse the association between women's employment and their decision-making (both financial and non-

financial) autonomy within the HH domain. Hence, the primary focus of chapters two and three is to evaluate how education and employment impact women's autonomy specifically within the HH domain. The underlying hypotheses posit that access to resources (education and employment) will empower women, enabling them to make more independent decisions within the dynamics of their HH. Chapter two will utilise multiple rounds of data from the Bangladesh Demographic and Health Survey (BDHS), while chapter three will use only one round of the BDHS dataset for quantitative analysis to validate relevant hypotheses and draw causal inferences. It's important to note that the study will confine its analysis to directly measuring the pathways leading to empowerment, as depicted in Figure 1.1, focusing particularly on the concept of 'autonomy'. However, given that the survey data has information on women's perception towards domestic violence (wife beating justification) but not actual occurrence; any variation in women's domestic violence experience because of increased access to education and labour market opportunities cannot be estimated. Bearing that in mind, chapter four of this thesis will delve into a much-nuanced aspect of women's empowerment i.e., exposure to intimate partner violence (IPV) and investigate the significance of women's employment on their exposure to IPV by extending the framework of women's empowerment beyond autonomy. This chapter identifies women's exposure to domestic violence in the form of IPV as detrimental to the process of overall empowerment. To estimate the correlational association between women's employment and IPV, the fourth chapter will use a mixed-method approach to investigate the significance of underlying contextual factors like gendered ideologies, social norms, cultural traditions, and religious beliefs. It is believed that an extension of the ongoing investigation by integrating qualitative findings into empirical analysis (using primary data from in-depth interviews and survey rounds) would contribute to the understanding of the causative association between women's employment and IPV.

1.2 Theoretic Framework

1.2.1 Definitions of Empowerment

For a few decades, women's empowerment has remained a fundamental objective of development initiatives (Malhotra & Schuler, 2005) and played a key strategic role in achieving wider development goals (i.e., gender equality and equity) (Schuler & Rottach, 2010). However, empowerment is a multifaceted concept that is interpreted differently by various scholars, depending on the specific context or circumstances in which it is discussed (Alkire et al., 2013). Additionally, the notion of empowerment has been frequently streamlined to conform to development agendas that prioritise universal aspects, overlooking the nuanced impact of social, cultural, political, and economic contexts on the empowerment process, particularly for women (DeJaeghere et al., 2022). As a result, determining the individual impact and quantifying the exclusive contribution of determinants has proven challenging due to the simultaneous influence of multiple factors on women's empowerment.

Empowerment has often been related to the notions of capabilities, choices, freedom, participation, power, and autonomy (Eyben, 2011). It is also referred to as an increase in people's capabilities to make certain life choices (Sen, 1985) or as the expansion of freedom of choices and actions to shape their lives (Narayan, 2002). However, according to Kabeer (1999), "empowerment refers to the process by which those who have been denied the ability to make choices acquire such an ability''. Kabeer's depiction of empowerment as a process includes interconnected notions of 'resources,' 'agency,' and 'achievements,' where agency embodies decision-making processes, resources serve as the means to exercise agency, and achievements signify the outcomes resulting from such agency. In such a process, attainment of certain resources (i.e., education, training, skill development, access to credit, and/or employment) is intrinsic and fundamental to initiate a shift in an individual's 'agency,' enabling them to make deliberate life choices within the structure of societal hierarchy and gender inequality (Kabeer, 2001; Malhotra & Schuler, 2005; Schuler & Islam, 2008). Hence, empowerment can be seen as a dynamic process that encompasses a spectrum of personal decision-making control, domain-specific autonomy, influence over HH decisions, and ultimately achieving the capability to bring positive changes in one's life (Ibrahim & Alkire, 2007; Mahmud et al., 2012). Additionally, the empowerment process has been identified as context-specific (Ghuman et al., 2006; Shihabuddin Mahmud, 2003; Mason, 1986) and multi-dimensional (Kabeer, 1999; Kishor & Subaiya, 2005; Malhotra & Schuler, 2005; Yount, 2005). As a result, the process of empowerment should also address society's underlying power relations, gendered ideologies, religious beliefs, and social inequality. Hence, empowerment implicates an elevated sense of consciousness and self-awareness enabling people to exercise direct and indirect power within the constructions of societal power structures, norms, and ideologies, which perpetuates gender discrimination and inequality (Kesby, 2005; Rowlands, 1997).

However, the 'empowerment', 'agency', and 'autonomy' have often been used interchangeably in existing literature (Mishra & Tripathi, 2011; Seymour & Peterman, 2018; Yilmaz, 2018), specifically when examining women's ability to leverage resources in pursuit of specific life choices and desired outcomes (i.e., see work of Mason, 1986; Mason & Smith, 2000). Nevertheless, all these terms are considerably different and not necessarily one can automatically lead to another despite being positively interconnected (Mishra & Tripathi, 2011). For instance, 'agency' can be viewed as a constituent of the 'empowerment' process where the latter term is not any static condition, but rather an ongoing process. Furthermore, 'agency' is exercised at multiple levels that can be personal and/or collective (Hanmer & Klugman, 2016). Hence, 'agency' can be perceived as the mechanism through which 'empowerment' takes place. However, the distinction between 'autonomy' and 'empowerment' is trickier given that both terminologies are frequently used with relevance to the process of women's empowerment. Some authors argue that autonomy should not be equated with empowerment (i.e., Alkire, 2005; Malhotra & Schuler, 2005), as autonomy suggests independence (focuses on the individual aspect of power), whereas empowerment suggests interdependence

(focuses on the collective aspect of power) (Agarwala & Lynch, 2006; Yilmaz, 2018). Alkire et al. (2013) have contended that women can be empowered as sole decision-makers, yet their autonomy may remain significantly constrained by social norms or prevailing circumstances. Besides, (Mishra & Tripathi, 2011) have argued that 'empowerment' and 'autonomy' cannot be presumed to automatically lead to one other; as women in specific situations can often enjoy constituents of empowerment (higher education, paid work) despite low levels of autonomy (in terms of HH decision-making, freedom of movement, and exposure to domestic violence) or vice versa. For example, sometimes women from lower economic and social backgrounds may possess higher authority on certain life aspects such as mobility or authority whereas educated women can be exposed to abuse that can be either physical and/or mental. Therefore, if empowerment is considered as a continuous spectrum, then nobody would be at the extreme right of the spectrum with complete autonomy; rather, everyone would exist along the axis with various levels of autonomy in different domains of their life. The process of empowerment is thus expected to push someone to the further right of the spectrum by increasing their autonomy level, thereby establishing 'autonomy' as an outcome of this empowerment process (Alfano et al., 2011).

The current study proposes to make a certain distinction in addressing both terms and defines 'empowerment' as an ongoing process of acquiring specific capabilities to enable women to make strategic and better life choices. Whereas the study views 'autonomy' as an indicator (specific capability) of women's empowerment depicting their level of authority and decision-making power within the HH domain at a particular stage and time in their lives. For this study, 'autonomy' is viewed as a fundamental constituent of 'empowerment' that can be measured over time as an outcome of empowerment. It involves the acquisition of resources to enhance individuals' ability to autonomously make strategic life choices and exercise agency in their daily affairs, independent of the influence of a spouse or extended family, especially in settings where this prerogative was previously denied to them (Kabeer, 2005b; Malhotra & Schuler, 2005; Pratley, 2016; Schuler & Rottach, 2010). Therefore, it is hypothesised that a woman must have certain authority over their own life and associated decision-making process within the HH domain to be considered empowered which can vary from one to another in consideration of their subjective contextual and social background.

1.2.2 Definition of Women's Autonomy

The notion of women's autonomy has held significant importance in the fields of social science (i.e., Agarwala & Lynch, 2006; Ghuman et al., 2006; Kane & Sanchez, 1994; Rajeshwari et al., 2020; Sen, 1975; Williams, 1996). As a result, definitions of autonomy have become inclusively heterogeneous, and they continue to be defined by an eclectic set of approaches. For instance, in existing literature autonomy has been perceived as "the degree of access to and control over material and social resources within the family, in the community and the society at large" (Dixon-Mueller, 1978, p. 6)

or capability of individuals to make choices and act on those choices to shape their circumstances (Sen, 1975). Later, within the context of demographic shifts in developing countries, Safilios-Rothschild (1982) defines autonomy as 'the ability to influence and control one's personal environment'. Likewise, when considering kinship structures and women's autonomy, Dyson and Moore (1983) have outlined it as 'the ability – technical, social, and psychological – to obtain information and to use it as the basis for making decisions about one's private concerns and those of one's intimates'. Additionally, Basu (1992) defined the autonomy of women as the capacity and freedom to act independently, while Mason (1995) defined it as the ability to make and implement independent decisions concerning personal matters significant to their lives and families. However, these earlier definitions of autonomy "assert a single construct that captures the multifaceted ability to gain control over the circumstances of one's life" (Agarwala & Lynch, 2006). Moreover, these definitions view autonomy as given and absolute (independent of all conditions) rather than relational and relative (interconnectedness of all conditions).

More recently, autonomy has been defined as the active ability of women to influence HH decisions, exercise control over economic resources, enjoy unrestricted mobility, and political participation and awareness. For instance, Bloom et al. (2001) have offered a broader conceptualisation of autonomy, asserting that it is "the capacity to manipulate one's personal environment through control over resources and information to make decisions about one's own concerns or about close family members" and "the ability to determine events in their lives, even though men and other women may be opposed to their wishes". Alternatively, Jejeebhoy and Sathar (2001) have defined autonomy as the level of control women possess over their lives, encompassing access to knowledge and information, decision-making authority, freedom of movement, the establishment of family power dynamics, and access to and control over resources. Similarly, Nigatu et al. (2014) have argued that autonomy is the extent of independent decision-making, freedom from constraint on physical mobility, and the ability to forge equitable power relationships within families. However, some of the scholars have provided context or culture-specific definitions of autonomy. For instance, Senarath and Gunawardena (2009, p. 138) have used a study-specific definition of women's autonomy focuses on their authority over health care choices and HH decisions and it is defined as "the proportion of women who make the decision either alone or jointly with the husband or someone else". Whereas considering the cultural context explicitly, Rammohan and Johar (2009) have defined autonomy as having the ability to make decisions on crucial HH matters concerning herself, her children, HH finances, and social interactions. Therefore, it is evident that existing literature has defined autonomy operationally in distinct ways, incorporating different characteristics and equating it with women's control over their lives, resources, access to information, equal say in family matters, independent decision-making, freedom of movement, and the ability to establish equitable power relationships within families. Hence, considering the preceding discussion, this study identifies women's autonomy as ''dynamic capabilities that support

women to attain decision-making power within HH domain, assert control over tangible and intangible resources, acquire freedom of movement, while challenging societal norms that perpetuate gender inequality and violence''.

1.2.3 Autonomy as an Indicator of Women's Empowerment

Women's autonomy has often been attempted to be measured using two types of indicators (Agarwala & Lynch, 2006; Alfano et al., 2011). Indirect measures employing characteristics, such as *female age* (i.e., Baten & de Pleijt, 2022; Fernandez & Kambhampati, 2017; Mabsout & Van Staveren, 2010), *education (relative/individual)* (Anderson & Eswaran, 2009; Imai et al., 2014; Quisumbing & Maluccio, 2003; Thomas et al., 2002b), *income* (i.e., Felkey, 2013; Kambhampati, 2009), and *labour market* experience (i.e., Derose, 2002), have been utilised as approximate indicators of women's autonomy. For example, Baten and de Pleijt (2022) have used the demographic indicator 'female age at marriage' as a proxy indicator of women's autonomy to identify the long-term success of human capital development. Additionally, measures of women's autonomy have incorporated individual observable indicators as direct measures of women's autonomy, such as decision-making power, freedom to leave the HH, freedom from violence, and control over financial resources (i.e., Becker et al., 2006; Ghuman et al., 2006; Mishra & Sam, 2016). For instance, different studies (i.e., Anderson & Eswaran, 2009; Fernandez & Kambhampati, 2017; Holland & Rammohan, 2019; Rammohan & Johar, 2009) have suggested HH decision-making as a measure of women's autonomy because it reflects the influence and authority women exerts on different HH outcomes. Nonetheless, critics have argued against using such indirect and direct measures as indicators of women's autonomy.

Balk (1994) argues that both a single direct measure and a sole indirect proxy are insufficient in capturing the diverse dimensions of women's autonomy, as each dimension may impact outcomes differently in terms of magnitude, direction, and statistical significance. Also, indirect and direct indicators are highly dependent on the context, which makes it challenging to conduct comparative research on autonomy (Agarwala & Lynch, 2006). They also argue that using indirect measures blurs the channels through which autonomy works and obscures which dimension of autonomy is being measured. While employing indirect measures such as relative income, education, and age, Fernandez and Kambhampati (2017) have found that these measures were insufficient in identifying the specific scope in which women's autonomy effectively impacts HH welfare. Likewise, scholars (i.e., Vaz et al., 2016; Woldemicael & Tenkorang, 2010) strongly advocate against employing these indirect proxy measures as sufficient indicators of autonomy. In addition, Malhotra and Mather (1997) have posited that these indicators can suggest access to resources, but do not necessarily signify control over these resources. Besides, employing direct measures to analyse women's autonomy undermines the correlations between its dimensions, which weakens the overall conclusions concerning the causes and impact of autonomy, rather suggests only the individual impact of each dimension (Agarwala & Lynch, 2006). Therefore, such criticisms of both indirect and

direct measures have prompted the development of summary indices as measures of women's autonomy (Alfano et al., 2011).

Various studies have measured women's autonomy using indices from the responses of female participants to different questions from their country's Demographic Health Surveys (DHS). For example, Fakir et al. (2016) have used an autonomy index, derived from responses to seven questions on mobility, financial freedom, and decision-making (i.e., decisions on major HH purchase, daily HH need purchase, own healthcare, child healthcare, visit to family or relatives, going to the health centre or hospital alone or with children, and income allocation) in the Bangladesh Demographic and Health Survey (BDHS), to assess the impact of autonomy on domestic violence. Similarly, Woldemicael and Tenkorang (2010) have used four behavioural questions (i.e., participation in decision-making of large HH purchases, daily HH purchases, decisions of visiting families or relatives, and attitudes toward partner's violence) from the Ethiopian Demographic Health Survey to measure woman's autonomy on their health-seeking behaviour. Alternatively, the Women's Empowerment in Agriculture Index (WEAI)[1] has been used to find an association between women's autonomy in HH productive decisions and children's food and nutrition security in Bangladesh (see, Holland & Rammohan, 2019). While the information from these questions provides valuable insights into female autonomy, translating it into a definitive measure of autonomy still presents challenges and remains unclear (Alfano et al., 2011). Moreover, such indices questions may not sufficiently explain autonomy, for instance, women who make decisions about activities outside their HH, healthcare, or agriculture may not always seem to have autonomy. Moreover, the assumption that the answers to the questions provide a flawless measure of the underlying unobserved autonomy trait is problematic. Furthermore, many of the intricacies related to control over resources and income are not adequately captured by these questions (Alkire et al., 2013). However, alternative methods of measuring women's autonomy have also been employed in the existing literature.

Scholars (i.e., Bloom et al., 2001; Mistry et al., 2009; Morgan & Niraula, 1995; Nigatu et al., 2014; Sabarwal et al., 2014) have measured women's autonomy using three dimensions, such as decision-making, financial autonomy, and freedom of movement in different regions. Alternatively, Jejeebhoy and Sathar (2001) have examined women's autonomy in relation to freedom from violence, mobility, control over resources and contribution to decision-making, while Thapa and Niehof (2013) measured autonomy across economic, domestic, and movement autonomy together with intra-spousal communication. Whereas, based on a 47-item self-reported questionnaire, Shroff et al. (2011) have employed seven dimensions to measure autonomy: HH decision-making, child-related decision-making, financial independence, permission for mobility, actual mobility, non-acceptance of domestic violence, and experience of domestic violence. Yet, these measures have been criticised for

[1] WEAI index seeks to assess the extent to which women are empowered in five domains of empowerment (5DE) in agriculture. These domains are: (i) decisions about agricultural production, (ii) access to and decision-making power about productive resources, (iii) control over use of income, (iv) leadership in the community, and (v) allocation of time.

their drawbacks, such as for being overly simplistic and neglecting variations across different aspects of women's autonomy. Considering all measures of autonomy used to date have faced problems, there is a need to better capture the multidimensional and relational aspects of women's autonomy (Vaz et al., 2016). Based on the review of existing literature, most autonomy-related studies have identified four primary elements: (a) decision-making capacity both inside and outside the HH; (b) mobility beyond the HH; (c) financial independence; and (d) attitude towards domestic violence. However, the majority of studies have examined these aspects of autonomy separately, focusing on individual elements in isolation. To the best of the current study's knowledge, there is limited research that has collectively utilised these autonomy indicators as comprehensive measures of women's overall autonomy, (i.e., financial autonomy, physical autonomy, decision-making autonomy within and outside the HH, and perceptual autonomy concerning the perception of violence), specifically in the context of Bangladesh. Moreover, the importance of examining autonomy from various perspectives is crucial, especially considering cultural diversity, as ignoring cultural influences can limit our understanding (Heaton et al., 2005). Hence, by incorporating these four (4) dimensions, the current study responds to the previous call for capturing the multifaceted and relational aspects of women's autonomy in Bangladesh. As a result, the study takes a distinctive approach by exploring autonomy as a multidimensional concept, which considers diverse autonomy dimensions.

Figure 1.1: Research Framework

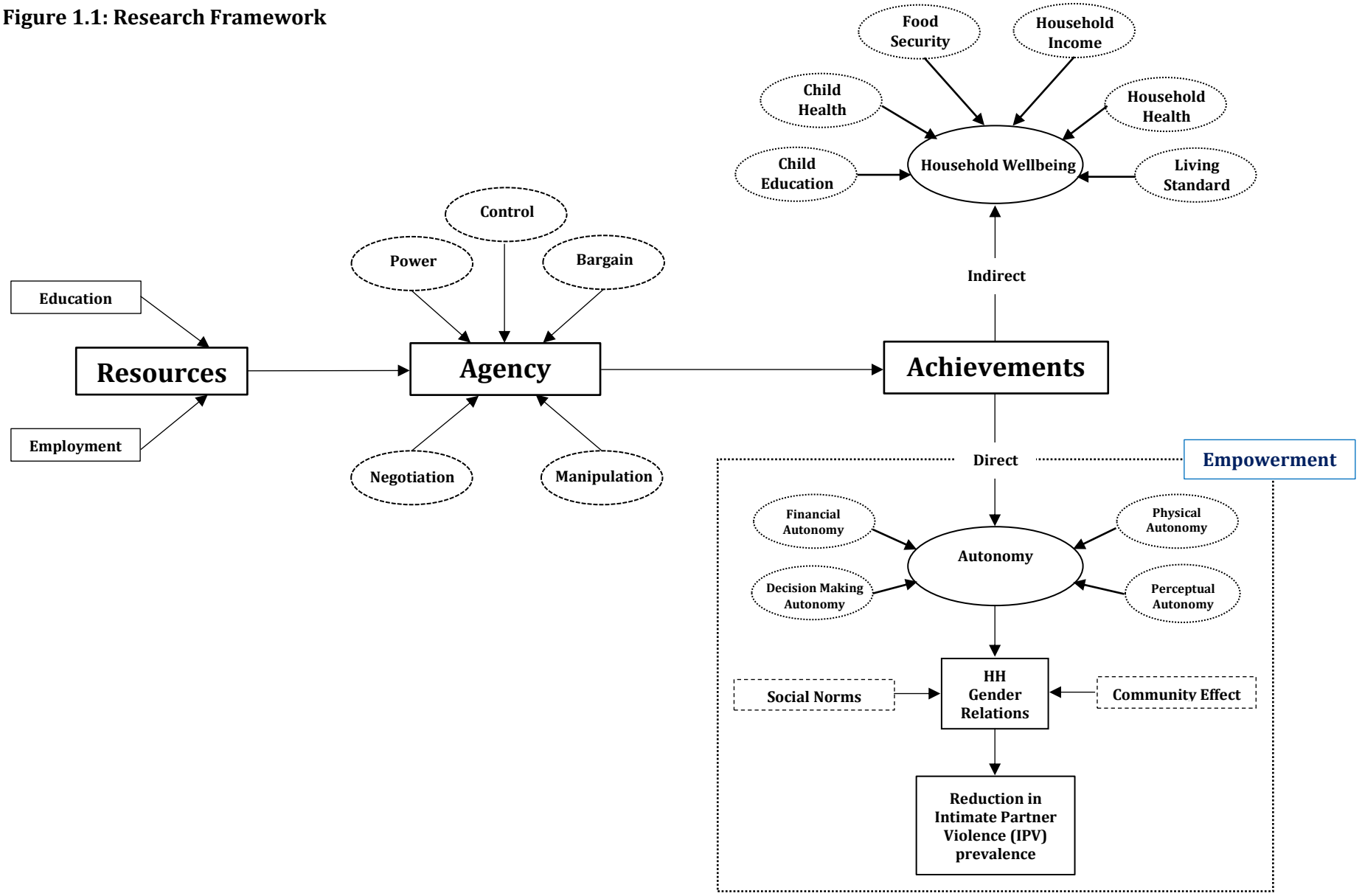


Figure 1.1 represents the process of empowerment in line with the theoretic definition of empowerment by Kabeer (2005). The process of empowerment begins with women's access to various resources such as access to education (in chapter one) and employment (chapter two) which can be labelled as determinants of their level of empowerment. As a result of women's access to certain resources, an empowering process is expected to be embarked upon which can be concurrently labelled as 'agency' that involves a procedure of women's self-controlled decision-making in the form of bargaining, negotiating, and manipulating to exercise power and take control over their own lives (figure 1). Finally, 'achievements' are labelled as outcomes of the empowerment process as a result of women's greater access to 'resources' and enhanced exercise of 'agency'. There are various consequences of women's empowerment extensively discussed in the existing literature that not only include women's enhanced authority and power over their own lives but also enhanced HH wellbeing i.e., child health, education, nutritional status, wealth level etc. However, the distinction between various outcomes of women's empowerment is often blurred in many discussions that some after-effects such as HH well-being in the form of child health, nutrition, and overall HH welfare are often regarded as indicators of empowerment. Whereas these positive outcomes might not have any direct consequence on women's level of empowerment, but certainly augment their sense of power within the HH domain and affect their wellbeing. Given these various pathways that can exert from women's increased agency, the outcome variables are broadly separated into two subgroups where all the indirect HH wellbeing-related outcomes are clustered into one subgroup and the direct consequences to women's autonomy are grouped. For this specific study, the focus of the investigation will be restricted to only women's autonomy.

In this case, women's autonomy in four different spheres i.e., financial autonomy, HH decision-making autonomy, physical autonomy (mobility), and perceptual autonomy (women's perception towards domestic violence). This framework (figure 1) can be insightful in explaining the hypothesised association between women's access to resources with their empowerment. Here, the level of empowerment is measured with a proxy indicator of women's enhanced abilities to make strategic decisions i.e., 'autonomy. Four different types of women's autonomy are being measured in relation to their access to education in chapter one whereas chapter two focuses on the effects of women's employment on two specific domains i.e., financial autonomy (both solo and joint with husbands) and HH decision-making autonomy. The third chapter will use a slightly modified framework where women's access to employment opportunities will be identified as 'resources' but the main outcome variable of interest will be their exposure to intimate partner violence (IPV). For this reason, a separate framework explaining the causal pathways from women's employment to their IPV exposure will be attached to the relevant chapter for further explanation.

1.3 Contextual Background: Status of Women in Bangladesh

Once labelled as a "bottomless basket", Bangladesh has transformed into an inspiring global case of growth and development. Bangladesh has a remarkable story of poverty reduction and development, evolving from being one of the poorest nations at its inception in 1971 to its current course of reaching middle-income status by its 60th year of independence in 2031 (The World Bank, 2023d). The percentage of people living in poverty declined from 44.2% in 1991 to 5.0% in 2022 (Kim, 2016; The World Bank, 2023d) and the country's human development index improved from 0.397 in 1990 to 0.661 in 2021 (UNDP, 2023). In addition, Bangladesh has reduced under-five mortality by more than 75% since 1990 (UN IGME, 2023) and maternal mortality ratio by 38% between 2000 to 2022 (Directorate General of Health Services, 2023). Furthermore, the reduction in fertility rates from over 6.5 births per woman in 1970 to less than 2.0 births in 2022 marks a remarkable achievement in demographic transition (The World Bank, 2023a). Such development is attributed to a strong demographic dividend, thriving exports in the ready-made garment (RMG) sector, resilient inflows from remittances, and consistent stability in macroeconomic conditions (average 6%) in the last two decades (The World Bank, 2023d). However, women in Bangladesh play a prominent role in shaping this development trajectory and deliberate innovative initiatives (i.e., conditional cash transfers and financial inclusion, stipend programmes for girls, family planning, and micro-finance) by the government and different key stakeholders have created opportunities for millions of girls and women from diverse backgrounds (Tembon, 2021).

Education is the foundation of a nation's development, and recognising its pivotal role, the government of Bangladesh has prioritised its expansion alongside tackling poverty. With a vast educational system, Bangladesh serves over 40.34 million students involving various stakeholders (14 types of primary education providers and 11 examination boards at the secondary level) reflecting a diverse and multifaceted education network within the country (BANBEIS, 2022). Over the past decade, the country has made significant strides in expanding educational opportunities and has made substantial progress in enhancing access to education. With 98% of primary school-aged children enrolled, the country has achieved near-universal primary enrolment and gender parity in equal access to education (USAID, 2023). In addition, secondary education has also shown significant improvement, achieving a net enrolment rate of 73.76% in 2022 (BANBEIS, 2022). Notably, Bangladesh has surpassed well before their 2015 MDGs targets for gender parity in both primary and secondary education, exhibiting a favour towards female students. Moreover, there has been a consistent decline in the number of out-of-school children, indicating positive strides in both absolute and relative terms.

Bangladesh is globally recognised for dramatically increasing access to educational opportunities with the adult literacy rate standing at 77.4% for males and 71.9% for females (UNESCO, 2021). However, for a long time, most females could not access education because of

higher involvement in HH and income-generating tasks. In addition, the practice of early marriage detrimentally affected the attendance and completion rate of females. According to UNICEF (2020b), over 60% of females with educational attainment at lower secondary school or lower levels were married before turning 18, with over a fifth getting married before reaching the age of 15 in Bangladesh. Furthermore, the prevalence of patriarchy, coupled with the pervasive societal belief that women should primarily focus on homemaking and childcare as the ideal role, contributes to these outcomes to a certain degree (Rupa, 2023). To address such challenges, Bangladesh has taken extensive measures with some of the longest-running education transfer programmes in the world, beginning with the Female Secondary School Stipend Programme (FSSSP) back in 1982. Initially piloted in just six locations, its success led to substantial expansion by 1994. The FSSP was initiated to boost female school enrolments and achievements by offering financial incentives to underprivileged parents and encouraging them to send their children to school. As a result, the educational landscape in Bangladesh has witnessed remarkable progress in the enrolment of female students at the secondary school level (see details discussion on FSSP and its impact in chapter two).

Table 1.1 showcases the trend in difference in enrolment over the years and reflects the shifting landscape of girls' participation in secondary education, indicating periods of growth and success in incentivising girls' education, which is corroborated by different studies (i.e., Fuwa, 2001; Patrinos, 2008). The negative values in the earlier years (1995-1997) indicate a higher enrolment percentage for boys compared to girls, a likely reflection of gender disparities corresponding to historical cultural norms and limited access to education for girls. Similarly, the growth of school numbers throughout the years underscores a heightened emphasis on promoting girls' education and potentially influencing enrolment shifts (Schurmann, 2009). Additionally, the data shows that the literacy rate among females has consistently lagged behind that of males over the past years. However, there is an overall improvement in literacy rates for both genders, leading to a gradual reduction in the literacy gap between males and females, from 13% in 2001 to 4% in 2021. Besides, the table shows that the annual average rate of increase in the percentage of female literacy is comparatively higher than males. Such reduction in the literacy gap and improvement in the percentage of female literacy is mainly credited to the implementation of the national FSSSP policy and diverse educational initiatives taken by the government and NGOs in Bangladesh (Khandker et al., 2021). Additionally, the table also indicates a decline in the literacy rate in 2021, potentially due to COVID-19 lockdowns, which amplified education attainment challenges, reduced HH incomes, increased domestic duties, and disproportionately affected marginalised children's access to education (Moyeen et al., 2022; Rahman & Sharma, 2021). However, the increase in the literacy rate in the following year emphasises the considerable influence of contextual factors on educational attainment.

Table 1.1: Descriptive Statistics of Secondary School Enrolment and Literacy Rate 1995-2022

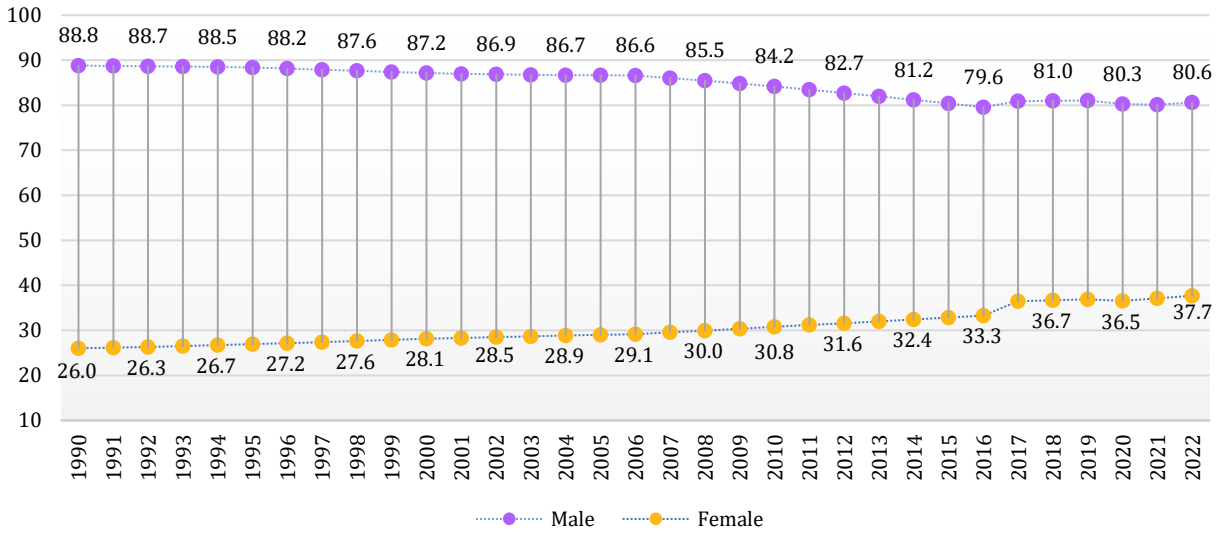
Year	No. of Secondary Schools (thousands)	Growth of Secondary Schools (%)	No. of Total enrolment (millions)	No. of enrolment (millions)		Enrolment (%)		Change ratio of enrolment (%)		Difference in enrolment	Adult literacy ages 15 and above (%)	
				Girls	Boys	Girls	Boys	Girls	Boys		Male	Female
1995	12012	---	511	240	271	47.0	53.0	---	---	-6.0	---	---
1996	12978	8.04	558	263	295	47.1	52.9	0.35	-0.31	-5.7	---	---
1997	13778	6.16	612	292	320	47.7	52.3	1.23	-1.10	-4.6	---	---
1998	14518	5.37	677	346	331	51.1	48.9	7.12	-6.49	2.2	---	---
1999	15460	6.49	724	376	348	51.9	48.1	1.62	-1.69	3.9	---	---
2000	15720	1.68	765	402	363	52.5	47.5	1.18	-1.28	5.1	---	---
2001	16166	2.84	789	420	369	53.2	46.8	1.30	-1.44	6.5	53.9	40.8
2002	16562	2.45	816	436	380	53.4	46.6	0.37	-0.43	6.9	---	---
2003	17386	4.98	813	432	381	53.1	46.9	-0.55	0.63	6.3	---	---
2004	18267	5.07	750	392	358	52.3	47.7	-1.64	1.86	4.5	---	---
2005	18500	1.28	740	387	353	52.3	47.7	0.06	-0.06	4.6	---	---
2006	18700	1.08	742	388	354	52.3	47.7	-0.01	0.01	4.6	---	---
2007	18728	0.15	712	377	335	52.9	47.1	1.26	-1.38	5.9	49.8	43.7
2008	18756	0.15	682	366	316	53.7	46.3	1.35	-1.52	7.3	---	---
2009	19083	1.74	736	380	356	51.6	48.4	-3.79	4.39	3.3	---	---
2010	19040	-0.23	746	398	348	53.4	46.6	3.33	-3.56	6.7	---	---
2011	19070	0.16	751	403	348	53.7	46.3	0.58	-0.67	7.3	62.5	55.1
2012	19208	0.72	794	423	371	53.3	46.7	-0.72	0.84	6.5	61.5	54.2
2013	19602	2.05	850	452	398	53.2	46.8	-0.18	0.21	6.4	64.2	57.8
2014	19684	0.42	916	487	429	53.2	46.8	-0.02	0.02	6.3	64.4	57.9
2015	20297	3.11	974	519	455	53.3	46.7	0.22	-0.26	6.6	68.1	62.3
2016	20449	0.75	1018	548	470	53.8	46.2	1.02	-1.17	7.7	75.6	69.9
2017	20467	0.09	1033	558	475	54.0	46.0	0.35	-0.40	8.0	75.7	70.1
2018	20465	-0.01	1047	565	482	54.0	46.0	-0.10	0.12	7.9	76.7	71.2
2019	20660	0.95	1035	557	478	53.8	46.2	-0.27	0.32	7.6	77.4	72.0
2020	20849	0.91	1025	562	463	54.8	45.2	1.88	-2.19	9.7	77.8	72.0
2021	20960	0.53	1019	557	462	54.7	45.3	-0.31	0.37	9.3	77.0	71.2
2022	21003	0.21	1013	554	459	54.7	45.3	0.05	-0.06	9.4	79.5	75.8

Source: Calculated from BANBEIS (2022), The World Bank (2023b) and Bangladesh Bureau of Statistics (2022) data sources.

* Enrolment % (both girls and boys) and difference in enrolment are presented in fractions because the No. of enrolment (both girls and boys) extends beyond the three decimal points.

While Bangladesh has made significant strides in educational attainment, 53.7% of the labour force in both genders lack formal education, with 30.8% females and 81.5% males among those who have never attended school (Bangladesh Bureau of Statistics, 2022). The rise in female literacy hasn't been translated well into labour market participation, which is evident through a considerable gender gap in workforce participation. Figure 1.2 shows that the male labour force participation slightly decreased to 80.6% in 2022 from 84.2% in 2010, while female labour force participation (FLFP) slightly increased to 37.7% from 30.8% in the same period. Despite an increase in women's labour force participation rate in the last decade, women in Bangladesh are half as likely as men to enter the labour force (Solotaroff et al., 2019). In fact, the growth in FLFP has been slow, with only an 11.7% increase over 32 years period, starting from about 26.0% in 1990. Moreover, FLFP in Bangladesh stands lower in comparison to nations like Cambodia (81%), Indonesia (51%), Vietnam (73%) and even with other similar-income countries (Kotikula et al., 2019). According to Evans (2022), the FLFP rate in Bangladesh remains well below the global average because women in Bangladesh are caught in "the patrilineal trap", prioritising HH and familial duties over pursuing women's careers and hence limiting workforce participation. The study by Solotaroff et al. (2019) shows that urban women in Bangladesh typically allocate around six (6) hours per day to HH domestic tasks and unpaid care work, while urban men spend only about one hour daily on these responsibilities. Even among employed urban women, who work nearly as many hours as men do each day (7.0 vs. 8.6 hours), they still invest approximately three (3) hours daily in domestic tasks and unpaid care work. Furthermore, factors such as having children under five, limited access to childcare, restricted mobility, concerns about safety in public spaces, and societal norms surrounding women's work significantly impact female labour force participation in Bangladesh (Kotikula et al., 2019).

Figure 1.2: Labour Force Participation Rate, by Gender (%) of Population Ages 15+)



Source: The World Bank (2023c)

Another damaging trend in Bangladesh is the prevalence of voluntary, familial, and/or unpaid work of women. In most countries, women bear a disproportionately higher responsibility for unpaid work, and spend proportionately less time in paid work than men (Kotikula et al., 2019). In Bangladesh, more than one-third of the female labour force works as unpaid contributing family helpers (Solotaroff et al., 2019). While only 6.8% of all workers contribute as family workers, the number increases to 12.5% for female workers (Bangladesh Bureau of Statistics, 2022). Furthermore, female's contributions to agriculture often remain unrecognised due to the tendency to categorise them as part of HH chores, which leads to their work being undervalued or overlooked (Chowdhury, 2022). In Bangladesh, the largest source of employment (61%) for female workers are agricultural, forestry, and fisheries (Bangladesh Bureau of Statistics, 2022) and female rural employment makes up about 70% of all unpaid employment, and 87% of these unpaid jobs for rural women are in agriculture (Farole et al., 2017). Hence, rural female agricultural workers constitute the largest share of unpaid employment in Bangladesh and much of FLFP's rise is from such a segment of female unpaid workers in rural areas, which is not associated with women's economic empowerment (Solotaroff et al., 2019). However, the productivity within this sector is notably below the global average and lags behind neighbouring countries such as India and Pakistan (Chowdhury, 2022). One plausible explanation for the paucity of paid employment within the sector could be attributed to such a factor.

The primary source of paid employment for women, even in rural settings, predominantly arises from the Ready-made Garments (RMG) industry. However, relying extensively on a single sector may not bring sustained female employment prospects in the long term (Chowdhury, 2022). In fact, a recent study by Rahman et al. (2023) shows that the percentage of women employed in the RMG sector has seen a continuous decrease, dropping from 54.2% in 2015 to 53.9% in 2018 and further to 53.6% in 2021, marking a notable decline from the 1980s when women constituted 80.0% of the sector's workforce. Moreover, the study reveals that in 2021, 51% of those leaving the RMG sector were women, a slight increase from 49% in 2015, indicating a rise in departures. Such a trend has been linked to various factors including childcare responsibilities, pregnancy-related issues, discrimination, challenges in balancing work and home duties, instances of harassment and violence, extended working hours, and inadequate salaries. This emphasises the significance of enhancing female employment and productivity across different industries. However, the rapid expansion of the RMG industry alongside the growth of microfinance has been instrumental in significantly enhancing the employment and broader economic prospects for women in Bangladesh. While RMG is the largest source of urban female employment, microcredit has facilitated self-employment/entrepreneurship for women, notably in rural regions (Solotaroff et al., 2019). These opportunities have played a role in reducing poverty and empowering women, especially microcredit has enabled them to generate income

and potentially elevate their status within HHs. For instance, Mahmud et al. (2012) have found that women's participation in microcredit programmes is associated with increased involvement in HH decision-making, either singly or jointly, on matters such as livestock, fruit or vegetable cultivation, and sewing. Furthermore, female microcredit borrowers are better able to allocate their income to goods more valuable to them and make major HH decisions when their income increases (Alam, 2012). Consequently, in recent decades, these factors collectively have had some positive impact in reducing gender inequality and enhancing the socioeconomic status of women in Bangladesh.

Bangladesh has positioned itself as the leading achiever in gender parity within South Asia, displaying notable progress across diverse sectors (The World Economic Forum, 2022). Despite such achievements, women and girls in Bangladesh face endemic violence in all facets of their lives (Human Rights Watch, 2020). According to Liller (2023), Bangladesh is one of the top-ranking countries in violence against women and 54% of women have experienced physical and sexual abuse at least once in their lifetime. In fact, a report from UNDP (2022) shows there has been an increasing trend in reported gender-based violence (GBV) incidents from 2018 to 2021, with women and girls as the primary victims, accounting for 88.2% of all aggregated GBV cases. Table 1.2 indicates a marginal 3.8% increase in physical violence over five years, averaging an annual increment of 0.76%. Conversely, partner violence in all its forms notably declined between 2011 and 2015, particularly lifelong emotional violence, demonstrating a substantial annual reduction of 5.7% over the five years, dropping from 40.2% in 2011 to 28.7% in 2015. Table 1.2 also indicates fluctuating trends in reported rape cases, peaking at 3,979 in 2017 and reaching a low of 3,650 in 2013, while showing a commendable reduction in acid-throwing incidents over time. Despite fluctuations, reported dowry cases also decreased gradually. However, incidents of child oppression witnessed an increase over the specified period.

Table 1.2: Violence Against Women in Bangladesh

Frequency of Partner Violence (at least once among ever-married women) (%)						
	Lifetime					
	2011			**2015**		
Physical violence	47.8			49.6		
Sexual violence	37.8			27.2		
Emotional violence	40.2			28.7		
Economic violence	17. 8			11.4		
Controlling behaviour	67.8			55.4		
Physical/sexual violence	57.8			54.2		
Physical/sexual or emotional violence	62.5			57.7		
Women Oppression (Cases)						
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Rape	3684	3650	3689	3928	3717	3979
Acid throwing	98	71	49	46	20	5
Dowry	6704	5716	6867	6595	5278	4125
Seriously injured	132	183	184	277	145	85
Others	8804	8476	8756	8652	7562	6999

Source: Bangladesh Bureau of Statistics (2011, 2015)

The prevalence of violence against women is found to be associated with numerous socio-demographic factors, which differ from country to country. However, one of the main contributing factors to this situation in Bangladesh is the entrenched history of male dominance, which has perpetuated gender-biased socialisation, sustaining stereotypes, and reinforcing the perceived inferiority of women compared to men (Hasan et al., 2023; Schuler & Nazneen, 2018). Furthermore, the ongoing gender gap in literacy rates (as shown previously) indicates enduring gender-based discrimination in pivotal areas, potentially resulting in inadequacy and eventual reliance on males later on (Karim et al., 2018). Additionally, studies in Bangladesh (e.g., Amin et al., 2013; Bates et al., 2004; Koenig et al., 2003) show that when women begin to become empowered through micro-finance or income-earning, men might resort to intimate partner violence (IPV) to reinforce their dominance and reinstate unequal gender roles within marriage. Moreover, in Bangladesh, cultural norms promoting women's passive response to their partner's aggression contribute to socio-economic dependency, which potentially leads to domestic violence, while their efforts to protect themselves may cause further victimisation (Dalal et al., 2009). Also, 51% of girls in Bangladesh are married even before they turn 18 years old, which significantly contributes to domestic violence by coercing young females into premature marriages and sexual unions, leading to sexual abuse (Hasan et al., 2023; Unicef, 2020a; Yount et al., 2016). Besides, other factors that contribute to domestic violence in Bangladesh include dowry (Bates et al., 2004; Naved & Persson, 2005), son Preference (Johnson & Das, 2009), deviant behaviour and personality traits of husbands (Dalal et al., 2009; Sambisa et al., 2010), lack of awareness about legal rights (Paul & Islam, 2015), and polygamy (Aktar, 2021; Khan, 2005).

Despite significant strides toward gender equality in recent decades, Bangladesh still grapples with entrenched discriminatory beliefs and practices, leading to persistent disparities. Women in Bangladesh spend more hours in unpaid care work than men, have limited participation in the labour force, often earning less than men, and only 13% of women own land. Shockingly, over 99% of individuals in Bangladesh hold at least one bias against women (Liller, 2023). This leads to women having unequal access to resources and opportunities, limited participation in decision-making, and a persistent gender wage gap. The following chapters (chapters 2 to 4) of this study will assess the influence of education and employment on women's autonomy and their encounter with intimate partner violence (IPV). If women's increased resources contribute to their socio-economic development, the study expects a positive influence of women's education, and employment in enhancing their autonomy and/or curbing their exposure to IPV, ultimately stimulating their overall empowerment process. Therefore, the findings should reaffirm the essential value of women's enhanced resources by offering valuable insights to design and implement effective future policies to foster inclusive societal development in Bangladesh.

1.4 Structure of Thesis

This thesis is based on three individual papers all of which focus on women's empowerment from different perspectives. The primary purpose of all these papers is to analyse the effects of women's access to resources (i.e., education and employment) on their level of empowerment. Since empowerment is a latent variable, it is measured via autonomy as a proxy indication of women's subjective state of empowerment. Henceforward, the following discussion will briefly illustrate the central theme of each paper.

The significance of education as a powerful intervention for advancing women's empowerment is evident from the Sustainable Development Goals (SDG) of the United Nations (UN) to be achieved by 2030 which highlight 'education as a fundamental element for acquiring knowledge and skills to attain gender equality and empower women'. Identifying education as a fundamental resource to initiate the process of empowerment, the first paper (chapter 2) wants to explore how increased access to education influences women's empowerment via pathways of autonomy within the HH domain. The primary aim of this paper is to examine the effects of women's education on four different types of autonomy i.e., financial, physical (freedom of movement, HH decision-making, and perceptual (tolerance of domestic violence) in the context of Bangladesh. For this reason, the difference-in-difference (DID) method is adopted using three rounds of the Bangladesh Demographic and Health Survey (BDHS) dataset. A government stipend programme (FSSSP) is exploited to create an exogenous variation in the multivariate DID model to generate a regression discontinuity for analysing the effects of secondary education on women's autonomy in Bangladesh.

The second paper (chapter 3) explores women's autonomy using the same theoretic framework of empowerment where women's access to resources is considered as a mediator of their augmented bargaining power within the HH. However, it is argued that resources might not inherently translate into tangible bargaining power for women, particularly in a social context that is dictated by patriarchal social norms where women's choices and authority are constrained by male-dominated HH dynamics. Moreover, women's participation in jobs often revolves around basic survival, lacking the ability to modify gender roles, redistribute domestic responsibilities, or secure equal property rights, thereby limiting the empowering capacity of employment. For this reason, women's employment in Bangladesh is used as a form of resource to investigate the stimulating effects on their autonomy as an indicator of their enhanced empowerment. This paper primarily focuses on women's HH decision-making from both financial and non-financial perspectives and hence uses two specific outcome variables i.e., financial autonomy and HH decision-making autonomy. Employing an instrumental variable (IV) technique using district-level employment rates derived from the Bangladesh Bureau of Statistics (BBS 2011) dataset, it investigates the stimulating effects of employment on women's autonomy.

Given the conflicting results in current research, it's crucial to investigate societal perceptions regarding women's increased empowerment and the extent to which women can influence gender dynamics within marriage due to their access to education and employment. Therefore, the third and concluding paper of this thesis (chapter 4) delves into how women's access to resources, specifically employment, impacts their vulnerability to IPV considering the prevailing gender and community contexts in Bangladesh. Extending the understanding of women's empowerment process in a patriarchal society like Bangladesh, this paper intends to expand the empowerment framework beyond measures of autonomy and HH wellbeing and considers their subjective well-being as an integral component of their empowerment process. For this purpose, primary data has been collected in two rounds consisting of in-depth interviews (n=40) and survey questionnaires (n=230). Both datasets are utilised for a mixed method analysis where qualitative analysis supplements the key findings of OLS estimation based on survey data. The findings of this paper narrate a detailed description of Bangladeshi women's empowerment status in recent years from the viewpoint of IPV exposure. It portrays a confounding illustration of women's journey to empowerment via employment where advantages are amalgamated with disadvantages and women make strategic choices that are most valuable to them which can be subjective and context-specific. Thereupon, the final paper teases out interesting aspects of women's empowerment in relation to their exposure to IPV that could challenge and/or alter the prevalent interpretation of empowerment.

Chapter 2

A Retrospective study on the Effects of Women's Education on their Empowerment via Pathways of Autonomy in Bangladesh

Abstract

It is widely believed that the significance of education cannot be overlooked as lack of access to education poses a significant challenge to women's empowerment. Women's lower level of education is intricately linked to other social aspects critical for women's overall well-being such as poverty and domestic violence. Hence, given its importance, development practitioners all over the world emphasise educating women as a central and crucial element of most developmental outcomes for achieving gender equality and enhancing economic productivity. Similarly, the government of Bangladesh in partnership with non-government organisations (NGOs) and various stakeholders have made a conscious and sustained effort to promote education in empowering women for decades. This paper investigates the effects of women's education on their empowerment via pathways of autonomy in the household (HH) domain. For this purpose, the difference-in-difference (DID) method is adopted, and a specific stipend policy (FSSSP) launched by the government of Bangladesh to make secondary education free for girls is used as an exogenous variation in the regression model to create a regression discontinuity. Therefore, it is plausible to compare the before and after effects of this specific policy in different age Cohorts of women with different exposure to education. This paper analyses four different autonomy domains with women's education and finds that while education is effective in improving women's solo financial decision-making autonomy for women in Cohort 1 with a five-year education stipend exposure, it is ineffective in exerting a similar effect for women belonging to Cohort 2 who had been exposed to two-year education stipend. Similarly, education is found to enhance women's HH decision-making power and reduce their perceived tolerance of domestic violence. However, it has no impact on women's physical autonomy i.e., their freedom of movement. Based on the mixed findings of education's influence on women's autonomy, it is argued that education alone is not sufficient for creating equal opportunity for women and guaranteeing empowerment across all domains. Nonetheless, it is a fundamental building block for developing individual capabilities, initiating the process of empowerment, and bringing collective change in social and gender norms.

Key Words: Education, Women's Empowerment, Autonomy, Bargaining Power, Household Domain, FSSSP, Bangladesh.

2.1 Introduction

In South Asian patriarchal societies, girls are frequently viewed as liabilities, burdens, sources of sorrow, or even subjects of shame (Abidi, 2020; Banu, 2016; Bhandari & Sabri, 2020). This prevailing notion further leads to the analogy of investing in girls' education as an act of "watering a neighbour's tree" (Chitrakar, 2009), primarily driven by the belief that educating girls is more expensive than educating boys (Herz et al., 1991; Hong & Sarr, 2012; Mannan, 1988). In rural areas, educating sons was prioritised because they were considered as a future investment for financial support to natal family members, while girls were expected to serve their husband's families after marriage (Schurmann, 2009; Shafiq, 2009). As a result, families prioritised preparing girls for marriage, emphasising domestic roles and child-rearing responsibilities, hindering their education attainment (Colclough et al., 2000; Olson-Strom & Rao, 2020). Bangladesh was not an exception to the case, with adult women's literacy rate of only 26% in 1991, compared to 44% of men (Khandker et al., 2021). Moreover, a household (HH) level survey by the World Bank in 1991/92 revealed that merely 10% of the population had essential literacy, even among those with secondary education, underscoring gender disparities in skill attainment (Fuwa, 2001). To address such a situation, the Government of Bangladesh started significant policy interventions by introducing various education stipend programmes such as the Female Secondary School Stipend Programme (FSSSP). As a result of such interventions targeted to girls and possibly other contributing factors, Bangladesh has made remarkable progress in the enrolment of female students at the secondary school level. Indeed, the BANBEIS (2022) shows that male enrolment stood at 45.31%, whereas female enrolment reached 54.69% at the secondary level in 2022, showing the contribution of these intervention mechanisms to the reform efforts of the Bangladeshi government. In addition, the total fertility rate in Bangladesh declined from 4.24 children in 1991 to 1.94 children in 2023, while contraception usage among married women (15-49 years old) increased from 37.9% to 63.5% (The United Nations, 2022). Hence, it is expected that heavy investment and promotion in women's education would enhance their employment opportunities, elevate their bargaining power, and advance their level of empowerment.

Nevertheless, having the highest gender parity in Southern Asia and ranking 59th globally (The World Economic Forum, 2022), Bangladesh still holds a significantly lower position in the women empowerment index. According to Malapit et al. (2014), women are not yet empowered in 75% of the HH surveyed in Bangladesh (2,040 HHs in 102 villages belonging to 73 upazila[2] which is nationally representative of rural areas). A recent report from UN Women and UNDP (2023) shows that Bangladesh scores 0.443 out of 1.00 (Low)[3] in the Women's Empowerment Index. The report

[2] Upazila is a geographical region or unit in Bangladesh, previously known as 'Thana'.

[3] The cut-off points of less than 0.600 for low women's empowerment, 0.600–0.699 for lower-middle women's empowerment, 0.700–0.799 for upper-middle women's empowerment and 0.800 or greater for high women's empowerment (UN Women and UNDP, 2023).

also presents that 51.4% of women aged 20–24 years old were married or in a union before the age of 18 and 15.5% before the age of 15. The adolescent birth rate is 74 per 1,000 women aged 15-19 as of 2019. In 2018, 23.2% of women aged 15-49 years reported experiencing physical and/or sexual violence in the last 12 months. Hence, a widely held belief persists that "Bangladeshi women are less empowered than men" (Hossain et al., 2019, p. 171). So, a crucial question remains about the effectiveness of these educational programmes by the government of Bangladesh in empowering women. Bearing that in mind, the current paper intends to analyse the long-term effects of women's education on their level of empowerment and extends the literature in a country context (i.e., Bangladesh) where rapid transformation in socio-economic patterns and targeted policy interventions took place in recent times. Moreover, there is a dearth of research on the long-term causal effects of women's educational attainment in developing countries (Musaddiq & Said, 2023), especially on non-educational outcomes including different aspects of women's autonomy in Bangladesh. Hence, this paper is particularly interested in investigating the effects of women's increased education on their empowerment via pathways of autonomy. For that reason, four different domains of women's autonomy within the HH domain (i.e., financial, HH decision-making, freedom of movement or physical, and perception towards domestic violence) have been used as outcome variables of interest.

There is a vast literature examining the long-term effects of women's education in various social contexts including women's improved socio-economic position (Goldin & Katz, 2002), marriage market outcomes (Agüero & Bharadwaj, 2014), their behavioural changes regarding fertility, marriage, and empowerment (Hahn et al., 2018). Moreover, in Bangladesh, studies have examined the long-term effects of education intervention on different non-educational outcomes. For instance, Hong and Sarr (2012) have found that Female Secondary School Assistance Project (FSSAP) decreased early marriage for girls and increased their labour market participation, while Shamsuddin (2015) has demonstrated that completed 5-year engagement with FSSAP can increase female labour force participation, along with earnings, employment types, and sectors. Whereas, Hahn et al. (2018) have shown that women eligible for participating in FSSSP were able to make their own decisions regarding their health care, visits to family members and relatives, and purchases of HH essentials. Moreover, Khandker et al. (2021) have revealed that participation in the FSSAP programme leads to delay in female marriage, enhances self-employment and non-farm employment opportunities, growing interest in marrying educated and employed men, increases contraceptive use, develops preference for daughters, and reduces fertility. Nonetheless, these studies come with their inherent limitations. For instance, Hong and Sarr (2012) have claimed that FSSAP was implemented solely in rural areas, whereas the FSSAP programme was introduced in both rural and urban regions (Schurmann, 2009), potentially resulting in an inaccurate portrayal of the programme's coverage and its impact (Shamsuddin, 2015). Furthermore, while the study by Shamsuddin (2015) has found that the female education stipend programme succeeds in attracting

women to the labour market, it lowers the wage. This ultimately suggests that the stipend programme may fail to empower women and the social benefit of the programme may not be enough to outweigh the costs (Shamsuddin, 2015). Essentially, both Hong and Sarr (2012) and Shamsuddin (2015) studies have produced mixed results on the impact of education stipend programme on labour market outcomes (Hahn et al., 2018). Alternatively, since rural girls were compared to the urban samples of the same age Cohort, Hahn et al.'s (2018) study estimates are likely to be underestimated (Khandker et al., 2021). Furthermore, both Hahn *et al.*'s (2018) and Khandker et al.'s (2021) study evaluate several other development outcomes instead of prioritising women's empowerment exclusively and analysing various pathways to women's empowerment that might yield from their educational attainment. As a result, these studies fall short of fully capturing the process of women's empowerment.

The current paper departs from the earlier research in distinct manners. Previous well-established literature (i.e., Afridi, 2011; Baird et al., 2011; Chaudhury & Parajuli, 2010; De Janvry et al., 2006; Filmer & Schady, 2011; Khandker et al., 2003; Muralidharan & Prakash, 2017; Schultz, 2004; Schurmann, 2009) have assessed the impact of government-assisted/stipend programmes on education-related outcomes in developing countries, while long-term evidence beyond direct effects of education is still scarce (Hahn et al., 2018). Furthermore, despite some studies conducting impact analyses of secondary stipend school programmes using exogenous conditions, the findings remained somewhat inconsistent (Khandker et al., 2021). The current paper differs from other studies by broadening the scope of relevant literature beyond impact evaluations, aiming to assess education attainment and its effects on women's empowerment process rather than directly evaluating policy interventions. Assumption of uniformity of schooling age in school enrolment across Cohorts can cause attenuation bias because girls may delay school enrolment, repeat grades and so on (Khandker et al., 2021). Moreover, assessing change in behaviour and norms in females through the limited perspective of education policy intervention (e.g., school enrolment) could only lead to a false sense of accomplishment (Xu et al., 2019). Hence, by considering the age at which girls commenced schooling and their current age, this paper focuses solely on their educational attainment rather than school enrolment, thereby bypassing an impact analysis of the policy intervention. Besides, the education results in Bangladesh are particularly policy-relevant (R. Heath & A. M. Mobarak, 2012), hence a focused assessment of the direct impact of educational attainment is required.

Moreover, many studies (i.e., Bergolo & Galván, 2018; Fernald et al., 2008; Gertler, 2004; Heinrich & Knowles, 2020; Kumar, 2021; Macours et al., 2012; Paxson & Schady, 2010; Shapiro, 2019) in different countries have explored the effects of such educational interventions on diverse non-educational consequences such as health, cognitive abilities, different labour market outcomes, and even on perceived autonomy. Yet, studies focusing on the impacts of educational attainment on women's empowerment through all four different pathways of autonomy (i.e., financial autonomy,

HH decision-making autonomy, physical autonomy, and perceptual autonomy regarding domestic violence as in this paper) remain limited. For instance, Hahn et al. (2018) utilise a single empowerment index based on three questions, limiting its ability to assess multi-dimensional facets of women's empowerment (i.e., captured through four different dimensions of autonomy in the current paper). Furthermore, unlike prior research, this paper exclusively focuses on women's empowerment process by analysing four types of autonomy, excluding indirect outcomes (see figure 1.1 in the previous chapter) such as child health, reproductive behaviour, or HH well-being to concentrate solely on factors directly influencing women's empowerment. Besides, different studies (i.e., Alkire et al., 2013; Anderson & Eswaran, 2009; Fakir et al., 2016; Mahmud et al., 2012; Schuler & Nazneen, 2018; Seymour & Peterman, 2018; Waid et al., 2022) have looked at autonomy indicators in relation to the empowerment of women in Bangladesh. However, to the best of the current paper's knowledge, no prior research has examined the direct effect of education attainment on all these autonomy measures together. Therefore, the aim of this paper is to comprehensively elucidate the effects of female education attainment on their empowerment process from a wider perspective.

Additionally, studies (i.e., Duflo, 2012; Samarakoon & Parinduri, 2015) have stated that due to unobservable factors including women's preferences, family background, and community characteristics that affect both education and empowerment, assessing the effects of education on empowerment may become difficult and can produce biased results. Unobservable factors might simultaneously influence both education and empowerment without identifying and accounting for these factors and hence, it is challenging to establish a clear cause-and-effect relationship between education and empowerment. Moreover, it can result in overestimation or underestimation of the true impact of education on the empowerment process, distorting the findings and interpretations of the study. To address this causality concern, a potential solution is to leverage sources of educational variation (e.g., variations in schooling years) that are unrelated to women's characteristics and empowerment (Osili & Long, 2008; Parinduri, 2014; Samarakoon & Parinduri, 2015). The present paper employs this approach by creating two distinct Cohorts of women with different durations of education exposure (i.e., Cohort 1 and Cohort 2), offering an opportunity to investigate whether the exogenous increase in women's education influences their autonomy process as opposed to the base group with no education stipend exposure (Cohort 3). Moreover, utilising data from the Bangladesh Demographic and Health Surveys (BDHS) enables the study to control for various socioeconomic characteristics that might influence the outcomes.

The present paper uses the difference-in-difference (DID) empirical method to conduct statistical analysis, leveraging the Female Secondary School Stipend Programme (FSSSP) as an exogenous variation to assess the impacts of women's education on their empowerment. Besides, this paper introduces different outcome variables of interest, diverging from the DID empirical model outlined in Hahn *et al.* (2018). For Ordinary Least Squares (OLS) regression analysis, the current paper employs HH survey data (Bangladesh Demographic and Health Surveys, BDHS), which

provides comprehensive details on individual and HH level characteristics, diverging from the administrative data (i.e., education enrolment) used by Khandker et al. (2003) and Schurmann (2009). This allows for control of various socio-economic characteristics that could potentially influence the outcome variable of interest. Hence, this paper includes different HH and community-level characteristics as controls suggested by Khandker et al. (2021) that may potentially affect the outcomes (i.e., religion, wealth, location, contraceptive use, fertility, husband's education, and women's employment). Moreover, this paper has used three rounds of the BDHS dataset till 2014, whereas Hong and Sarr (2012) used only one survey round (BDHS, 2007) and Hahn et. al. (2018) used BDHS datasets till the survey year 2011. Using more recent datasets, this paper contributes to the literature by exploring the long-term implications of educational attainment across four distinct pathways of female autonomy. Besides, the present paper also offers a more comprehensive assessment of the long-term effects compared to the limited literature currently available in the context of Bangladesh. Furthermore, three different age Cohort specifics have been used based on their eligibility for receiving an FSSSP stipend. Each Cohort is defined by a differential level of treatment intensity i.e., exposure to education. The first Cohort (Cohort 1, 6–11 years old in 1994) is eligible to receive a stipend for five years, the second Cohort (Cohort 2, 12–14 years old in 1994) is eligible for two years, and the third Cohort (Cohort 3, born in 1979 or before with upper limit of 23 years old in 1994 to concentrate on girls who missed the stipend programme marginally).

The paper also focuses on the 'intent-to-treat' (i.e., treatment effect) in an unconventional difference-in-differences (DID) method by exploiting the variation in geographic concentration (the stipend programme was only offered in rural areas) and timeline of the FSSSP programme as main identification strategy. Thus, in this DID model, place of residence (i.e., rural) has been used as a treatment dummy, whereas Cohort 1 and 2 have been used as time dummy variables and Cohort 3 has been the base group. It is important to highlight that the crucial assumption of this empirical analysis, based on difference-in-differences (DID) estimators, that the outcome difference is constant over time for rural and urban areas in the absence of exogenous variation (i.e., FSSSP for this instance). To mitigate potential bias arising from age Cohorts, this paper employs an additional control by including an urban Cohort (girls from equivalent age groups ineligible for the FSSSP) in the analysis. This inclusion helps to account for any inherent 'Cohort effect' and prevents the empirical results from solely reflecting differences among age groups when comparing Cohorts 1 and 2 against the base group (Cohort 3). Therefore, the paper uses urban girls (corresponding to all three Cohorts) as a control group in addition to using rural girls in Cohort 3 as a control. In that way, the identification strategy is two-pronged, where the first strategy is to consider the differences in FSSSP programme eligibility among Cohorts 1 and 2 (stipend recipients for 5 and 2 years respectively) with Cohort 3 (older age group ineligible for stipend) in rural areas. While the second strategy is to use the corresponding urban Cohorts (aged 6 to 23 years in 1994) as a control group (non-recipient of stipend) to factor out any simultaneous countrywide changes. Furthermore, to address the time-

related trends, the current paper incorporates dummy variables for age and survey years, along with division fixed effects, effectively absorbing any geographic disparity. Consequently, the inclusion of age and year-fixed effects enables control over birth-year variations in this analysis.

The current study results underscore the intricate nature of the association between women's education and their autonomy within the HH domain. Evidence shows that women's education can have differentiated effects on varied domains of autonomy. The present paper observed a notable difference between Cohort 1 and 2 among women exposed to secondary education stipends for varying durations (five years and two years, respectively), indicating the significance of women's prolonged exposure to education. Moreover, the current paper has discovered a substantial correlation indicating that women's education significantly enhances their autonomy concerning independent financial decision-making. However, it did not establish a clear causal relationship between women's educational attainment and their physical autonomy, particularly freedom of movement. This paper has used an index (using the PCA technique) to measure women's autonomy in HH decision-making across health, purchases, family visits, and child healthcare, revealing that education enhances their authority, signalling increased bargaining power. Last but not least, the paper has concluded that women's education significantly influences their perception of domestic violence, noting that educated women are less inclined to justify or accept wife beating as a form of behaviour. However, it is important to note that the impact of education on women's autonomy regarding views on domestic violence, specifically the perception of wife beating, is solely significant for Cohort 1, which experienced five years of secondary education. This suggests that altering women's perception towards domestic violence takes longer compared to the change observed in their perceived bargaining power through education. It is not unexpected given that changing perceptions and tolerance toward domestic violence often intertwine deeply with societal norms and entrenched gender identities. Hence, education alone might not suffice to alter these attitudes without potentially triggering resistance or male backlash within the existing social structures.

The subsequent section offers a review of existing literature on education's role in women's empowerment via autonomy indicators. The third section outlines the methodology including sample, measurement methods, and econometric techniques. Subsequently, section four presents a comprehensive overview of summary statistics, empirical outcomes, and findings. Finally, section five encapsulates the key outcomes of this paper and offers concluding remarks.

2.2 Literature Review

In the field of development studies, the significance of educating women has been well-established for many decades. Education enhances individuals' access to various life opportunities and has been recognised as a crucial factor in promoting women's autonomy and empowerment (Eger et al., 2018; Hanmer & Klugman, 2016; Kabeer, 2017; Pickbourn & Ndikumana, 2016; Samman & Santos, 2009; Subrahmanian, 2005). In fact, formal education can help to empower women in various dimensions

(Mahmud et al., 2012), as access to resources (i.e., education) will determine the capacity to make strategic life choices (Kabeer, 2005a). The impact of education falls within the analytical framework of human capital theory, as it expands their knowledge and skills (Jayaweera, 1997), improves their capacity to resist suppression (Hogan et al., 1999), and increases their ability to deal with the outer world (Kabeer, 2005a). Human capital theory is established on the notion that investing in one's education and training can yield multiple benefits for individuals (Schultz, 1982). Indeed, education produces benefits for women by enabling them to gain a better understanding of their rights and responsibilities and enhancing confidence with regard to different possibilities to bring positive change in women's lives (Albert & Escardíbul, 2017; Kabeer, 2011). As a result, education unlocks the pathways for autonomy through employment, income, access to credit, and other resources which are crucial for their empowerment process (Amin & Becker, 1998; Chowdhury, 2011; Pitt et al., 2006; Schuler et al., 1996).

Different studies have shown that women with a higher level of education have more HH decision-making autonomy than those with lower levels of education. For instance, Duflo (2012) demonstrates that education enhances women's influence in their HHs, as it equips them with knowledge, skills, and resources to make an informed decision that enhances their well-being. In fact, Seeberg (2011) shows how education enables school-aged Chinese girls in restrictive cultural settings in rural areas to comprehend their available choices and how empowerment takes place. Furthermore, studies in India (i.e., Dhanaraj & Mahambare, 2019; Sedai et al., 2021; Sujatha & Reddy, 2009) show that increased education level is likely to raise women's decision-making autonomy in HH purchases and chores, along with improved earning capacity, access to credit and formal banking services, and financial decision-making capability. Similarly, educated women have exhibited a more pronounced impact on HH dietary diversity decision autonomy in Bangladesh (Rashid et al., 2011), as well as on both individual and joint decision-making regarding consumption and estate purchases in Taiwan (Xu & Lai, 2002), and a notably stronger influence on joint decision-making for risky lottery purchases in China (Carlsson et al., 2013). Because female education reshapes the traditional distribution of power within HHs (Yadav et al., 2021), it also improves women's autonomy with regard to contraception use (Kim et al., 2010; Ashraf, Field and Lee, 2014), which influences their fertility choices, reduces fertility (Breierova & Duflo, 2004; Currie & Moretti, 2003; Osili & Long, 2008) and improves reproductive behaviour (Behrman & Rosenzweig, 2002; Lefgren & McIntyre, 2006; McCrary & Royer, 2011). Similarly, a substantial body of empirical research has shown a strong link between women's education and different HH well-being issues such as improved nutritional status of women and children (M. Aslam & G. G. Kingdon, 2012; Güneş, 2015), reduced child mortality (Akter et al., 2015; Grépin & Bharadwaj, 2015), better health-seeking behaviour (Baker et al., 2011; Cleland, 2010), higher immunisation of both mother and children (Masuda & Yamauchi, 2020; Vikram et al., 2012), cognitive ability (Araújo et al., 2014). In addition, women's education has been

found to be effective in fostering unmarried daughter's level of empowerment (Schuler & Rottach, 2010).

Nonetheless, women's education not only influences decision autonomy made within the HH but also extends its impact on different aspects of autonomy in women's lives such as choosing a life partner, resisting intimate partner violence (IPV), and attaining freedom of movement beyond. For instance, Hahn et al. (2018) have found that educated women are more likely to marry more educated men with better jobs and earning prospects which can be indicative of reverse causality with regard to the hypothesised association between women's education and autonomy. Besides, Musaddiq and Said (2023) have demonstrated that educated women marry better-educated men resulting in higher HH income and better health outcomes in Pakistan. Also, female education has been found to increase the opportunity cost of getting married and/or having large families as well as to alter their preference for smaller families with a higher quality of life with fewer children (Becker & Lewis, 1973). Besides, women's education has also been found to be protective against IPV (i.e., Bates et al., 2004; Fakir et al., 2016; McCarthy, 2019; Vyas & Watts, 2009). Education empowers women with increased awareness and understanding of their rights, ultimately enhancing their sense of control over their life choices, self-esteem, and self-confidence (Donald et al., 2020; Laszlo et al., 2020; Maduekwe et al., 2020) and thus, they become more resistant to violence. Moreover, Ghimire et al. (2015) have found that improvements in both women's and men's educational attainment reduce actual occurrences of IPV in Nepal. Whereas in a cross-country study, Pierotti (2013) has found that educated women of all ages are less likely to rationalise IPV and more likely to reject IPV. Similarly, Eze-Ajoku et al. (2022) have found that women with higher levels of education are less tolerant of spousal physical violence in Nigeria.

Existing literature (i.e., Blau & Winkler, 2018; Blossfeld et al., 2015; Heath & Jayachandran, 2018b; Spierings, 2016; Van der Lippe & Van Dijk, 2002) also shows that women's education attainment is conducive to better employment opportunities, which grants them with enhanced financial freedom. Human capital theory posits that education fosters diverse human capital gains (cultural, social, cognitive, and economic) for any individual. As a result, highly educated women are more appealing to employers due to the aforementioned notion of enhanced productivity (Blossfeld et al., 2015) which could result in their greater presence in skilled and well-compensated roles as well as higher engagement in the labour market (Bussemakers et al., 2017). Even, in rural India, Dhanaraj and Mahambare (2019) show that education provides women with greater autonomy to break the barrier of family structure to enter into non-farm work. Furthermore, Bussemakers et al. (2017) in their study of 139 country data from 1995–2014, have demonstrated that women's education translates mostly into employment despite the country context they live within. Accordingly, women's earning capacity increases as a result of better education and ultimately improves their intra-household bargaining power, autonomy, and empowerment (De Jong et al., 2017; Dhanaraj & Mahambare, 2019; Kantor, 2009; Rodriguez, 2022). In this process, women also

gain higher authority and autonomy to move freely in the public domain, as said by Malhotra and Schuler (2005) increased mobility is an integral element of empowerment. As women become more educated and gain access to employment opportunities, their financial independence and confidence increase leading to a greater sense of agency and freedom. Thereby such a sense of agency, extended to their freedom of movement within their communities and beyond, enables them to participate more actively in various spheres of life and challenge traditional gender norms. For instance, Kantor (2009) have noted that women experienced a greater freedom of movement due to workforce participation. Additionally, Al Mamun and Hoque (2022) show that due to labour force participation in the RMG sector of Bangladesh, women have increased financial capacity and HH decision-making power, along with freedom of movement. Similarly, education positively impacts female mobility beyond the workplace. For instance, Mahmud et al. (2012) have demonstrated that educated women have freedom of mobility and are more likely to go to health facilities. Therefore, based on the above evidence, it can be deduced that resources like education and/or employment might induce women's autonomy and thus contribute to their empowerment process (DeJaeghere et al., 2022).

While several studies have demonstrated that increasing women's access to education leads to their autonomy and empower them, this hypothesised relationship is not consistent across all situations and varies across different contexts (Bussemakers et al., 2017; Pradhan et al., 2015; Spierings, 2016). Different studies have provided evidence which indicated towards mixed effects of education. For instance, Alkire et al. (2013) found that there is no relationship between education and empowerment for both women and men working in the agricultural sector of Bangladesh but the relationship was significant in another country context i.e., Uganda. Additionally, Mahmud, Shah et al. (2012) referred to education's mixed influence on the empowerment process where it was found to be insignificant in terms of women's decision-making autonomy and control over resources in Bangladesh while augmenting their freedom of mobility and self-esteem. Furthermore, Samarakoon and Parinduri (2015) found no evidence to support the claim that education improves women's decision-making authority on contraceptive use, employment, children's outcomes, HH expenditure, control over savings, assets ownership (other than HH appliances and jewellery), or community participation in Indonesia. Similarly, in Peru, Wiig (2013) found no effect of female education on their participation in HH decision-making and community interactions.

Moreover, Eger et al. (2018), stated that "formal educational systems replicate social norms, dominant values and drivers". As a result, such dynamics can exacerbate inequality and reinforce disempowerment within society by perpetuating established hierarchies and exclusions (Bivens et al., 2009). For instance, Srinivasan and Bedi (2007) presented that while husbands with higher education are less prone to perpetrate violence, the education level of women does not seem to be mitigating the risk of domestic violence in rural India. In addition, Erten and Keskin (2018) showed that an increase in education among rural women led to an adverse effect on their psychological violence with no impact on their exposure to physical violence and/or a change in women's attitudes

towards violence in Turkey. Similarly, Hosein (2019) presented that an increased level of education can sometimes trigger a backlash effect among men, potentially increasing the risk of domestic violence against women in Trinidad and Tobago. Women's education and awareness might create social tension by challenging the social norms hence potentially leading to domestic violence to reinstate male dominance (Srinivasan & Bedi, 2007). While women's education has been shown to improve gender equality and empowerment process through increased self-confidence, a sense of awareness, and an expansion of their social relationships (Eger et al., 2018), the above-mentioned studies demonstrated that such attainment is simultaneously associated with a rise in IPV against women. Hence, women's educational attainment and its impact on IPV is still unclear.

Additionally, women's education and labour force participation has been found to have an U-shaped relationship, partly assumed to be having an income effect (see, Chatterjee et al., 2018). In fact, studies in Turkey, Iran, and India (i.e., Dildar, 2015; İlkkaracan, 2012; Lahoti & Swaminathan, 2016; Majbouri, 2016) have shown that while female education levels have increased, women's employment rates have remained relatively low. Besides, Anderson and Eswaran (2009) have found that women's education levels have no relation with their intention of workforce participation. Alternatively, existing literature demonstrated a reverse causality between women's education attainment and their labour force participation. For instance, Heath and Jayachandran (2018b) prove that increasing demand for cheap labour in the ready-made garment (RMG) sector appears to influence the rapid increase in girls' educational attainment in Bangladesh. Therefore, the relationship between women's education and their autonomy within the HH domain and society at large is far from straightforward. Hence, this is indicative of the nuanced ways in which educational attainment can lead to positive or unintended outcomes. Furthermore, Handa (2000) has found that the impact of education on mortality becomes negligible among urban women in Jamaica, potentially due to factors related to the long-term effects of education on fertility. Since the impact of education is often effective and visible in the long term (Handa, 2000), it is important to assess the influence of women's educational attainment on various indicators of their autonomy in the context of Bangladesh where studies exclusively focusing on the long-term effects of education on varied domains of women's autonomy are limited.

There has been extensive research on education and its various benefits to women's health and HH well-being, but the channel through which education influences women's subjective well-being (including exposure to domestic violence or IPV) and individual empowerment otherwise known as autonomy has been relatively less emphasised. In other words, it can be said that the outcomes of women's greater access to education are well known but how that refers to their empowerment is less clear. Hence, in this context, the current paper aims to shed light on the impact of female educational attainment on their empowerment process through different autonomy pathways, addressing the underexplored aspects.

2.3 Brief History of Secondary Female Education Policy in Bangladesh

Glaring disparities between the levels of male and female educational attainment spurred legislators to urgently seek strategies to mitigate, or ideally eliminate, these persistent gender-based discrepancies as outcome indicators of development all over the world (Schurmann, 2009). As a result, many policy interventions, such as stipend programmes and conditional cash transfers (CCT) have been put into place globally in response to the Millennium Development Goals (MDGs) by the UN to reduce the gender gap in educational outcomes. One of the earliest successful examples would be Mexico's *'Progresa'* CCT programme which significantly improved girls' secondary school enrolment and decreased rural schooling gender gaps in the 1990s (Dubois et al., 2012). The success of the aforementioned programme prompted the adoption of similar programmes in more than 130 developing nations to enhance different development indicators (Fiszbein & Schady, 2009). The provision of these subsidies for female secondary education was primarily aimed at reducing the gender gap in educational attainment and/or often part of poverty reduction strategies to serve as social safety measures for marginalised communities. Besides, such interventions functioned as direct and observable means to incentivise parents to invest in their daughters' secondary-level education (Xu et al., 2019) acknowledging the financial constraints in educating girls specifically in developing countries (Khandker et al., 2021).

Recognising the commitment to address these socio-economic challenges, Bangladesh was the first nation in Asia to launch a female secondary school stipend programme for promoting girl's education. The female secondary school stipend initiative was first initiated in 1982 by a local NGO in one upazila of Bangladesh with funding from USAID. This stipend programme was expanded by one upazila every year, eventually covering six upazila by 1992 with a 12% increase in awardee schools within four years (Khandker et al., 2021; Simeen Mahmud, 2003). Built on the success of these pilot interventions, the government of Bangladesh took steps to enhance rural female enrolment at the secondary school level by introducing four distinct projects in 1994, all of which aimed at providing stipends to female students under the FSSSP: i) Female Secondary School Assistance Project (FSSAP) by the World Bank (IDA) in 118 upazilas; ii) the government-financed Female Secondary Stipend Project (FSSP) in 282 upazilas, iii) Secondary Education Development Project (SEDP) by Asian Development Bank (ADB) in 53 upazilas; iv) Female Secondary Education Project (FSEP) funded by Norwegian Agency for Development Cooperation (NORAD) in 7 upazilas (Khandker et al., 2021; Simeen Mahmud, 2003).

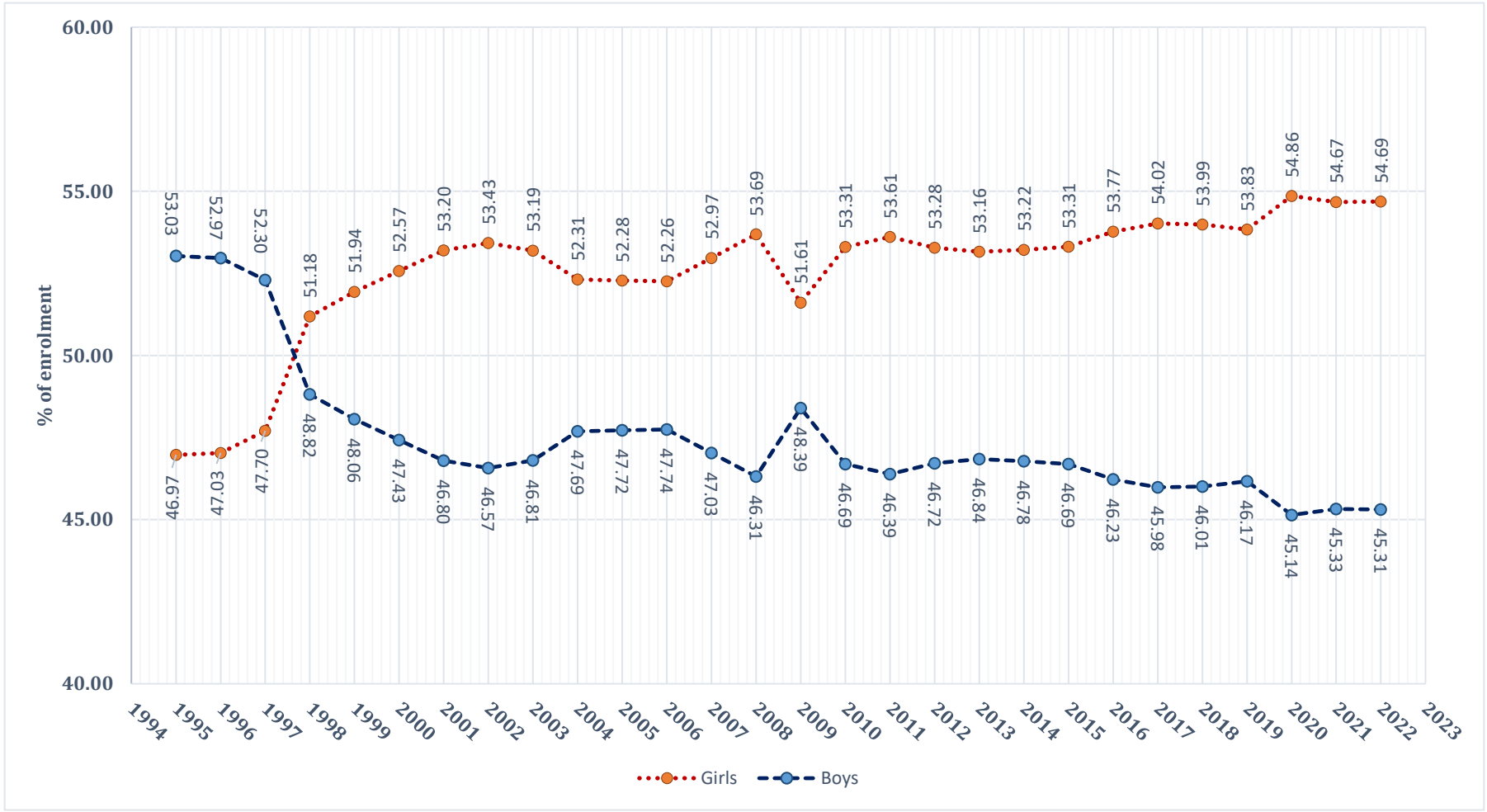
By combining conditional cash transfer and a free tuition policy, these programmes have significantly improved parental attitudes towards education gilds, reduced gender disparities, and gradually reshaped society's attitude toward female education which resulted in its recognition as the "world's vanguard programme of this type" (Mahmud, 2021). Despite the budget constraints to implement different components of FSSSP simultaneously, the stipend programme (FSSSP) was extensively implemented throughout the nation by targeting female students who maintained a

minimum of 75% attendance, achieved at least 45% marks in annual exams, and remained unmarried (Hong & Sarr, 2012; Schurmann, 2009). The stipend generally covered a major portion of direct costs associated with schooling and it was given directly to the female students. The annual direct cost of secondary education was around USD 54 per student in 1998, which included tuition (42% of the total direct cost) and other direct costs such as textbooks, exam registration fees and school uniforms. In addition to the stipend, tuition subsidies were allocated for every school with eligible female students enrolled (Johnston, 2002). The main objectives of FSSSP were to reduce the gender disparity in school enrolment and to increase female educational attainment to empower women with access to higher education, employment opportunities and independent income. However, several long-term objectives of FSSSP were to:

- ✓ enhance and retain female students at the secondary level to promote female education,
- ✓ reduce population growth by motivating the stipend clientele group to refrain from marriage till completion of the SSC examination or 18 years of age,
- ✓ increase involvement of women in various socio-economic development activities,
- ✓ encourage community participation through parent-teacher associations,
- ✓ increase women's self-employment for poverty alleviation and HH welfare,
- ✓ assist in improving the social status of women, and
- ✓ strengthen the Directorate of Secondary and Higher Education (DSHE) through the implementation of support and capacity building at the Upazila level across the country.

FSSSP helped by alleviating the direct costs associated with education (i.e., cost of schooling, opportunity costs, uniforms, books, private tutor fees, examination fees etc.), overturning the traditional notion of female education being a financial burden, ushering in positive changes for the betterment of girls, augmenting their employment prospects, and ultimately benefitting their families. As a result, in the last 30 years, the educational landscape in Bangladesh witnessed remarkable progress in the enrolment of female students at the secondary level. Figure 2.1 illustrates statistics of secondary school enrolment (by gender) in Bangladesh between 1995-2022. The data depicts a consistent pattern of girl's enrolment percentages lagging behind boys' enrolment in the mid-1990s. However, there was a shift around 1998 where girls' enrolment percentage surpassed boys indicating progress towards gender equality in secondary education. The shift in enrolment most likely signifies the combined efforts of FSSSP policy interventions to promote awareness regarding girls' education, address barriers, increase opportunities, and change social perception towards educating girls (Simeen Mahmud, 2003). However, despite these positive trends, fluctuations in enrolment percentages indicate that there might be other contextual factors causing such variation.

Figure 2.1: Percentage of Secondary School Enrolment by Gender (1995-2022)



Source: BANBEIS (2022)

Considering the timeline that coincides with FSSSP, there has been significant interest by academics and researchers to exploit this exogenous variation in understanding the nuanced benefits of women's educational attainment on various development outcomes. However, most of the research studies (relating to the effects of female stipend programmes) concentrate primarily on school enrolment, attendance, and learning outcomes. In the case of Bangladesh, a few studies have so far analysed the effects of women's education on their age of marriage, fertility outcomes, pre-natal and post-natal health alongside labour force participation. Nevertheless, no studies have yet explained the impacts of women's education on their autonomy and empowerment level as comprehensively as this paper intends to explicate. Therefore, this paper can be instrumental in adding valuable insights to the ongoing exploration of women's empowerment in Bangladesh.

2.4 Research Methodology

2.4.1 Justification of Using Difference-in-Difference (DID) Technique

The primary research question of this paper revolves around examining whether women's education enables them to attain increased autonomy in the HH domain concerning their own life choices, well-being, children, and overall HH welfare. A total of four autonomy indicators have been used to evaluate empowerment within the HH domain: women's financial autonomy, HH decision-making autonomy, physical autonomy (freedom of movement), and perceptual autonomy (attitude towards domestic violence). The choice of these four autonomy variables is based on both the availability of relevant data in the BDHS datasets and the significance of these variables, illustrated in existing studies, as indicators of empowerment in the context of Bangladesh. To assess the impacts of women's education on different dimensions of autonomy, the difference-in-difference (DID) analytical technique has been used for statistical analysis. The rationale for choosing the DID technique is primarily driven by the fact that this approach is relatively transparent and seemingly plausible in estimating causal effects in a setting where a randomised controlled trial (RCT) is not practically feasible. DID is classically used to estimate the effect of any intervention or treatment (such as policy reforms and/or large-scale programme implementation) by comparing the outcome changes over time between one population (i.e., enrolled in that particular intervention or programme otherwise known as the intervention group) with another population that is not (i.e., the control group). In general, DID is used to estimate the treatment effect on the treated (causal effect and is particularly useful in examining altering scenarios where one group experiences a treatment while another remains untreated. To establish any causal effect, three key assumptions are necessary: exchangeability, positivity, and Stable Unit Treatment Value Assumption (SUTVA). These assumptions ensure comparability between groups, availability of treatment for all units, and independence of treatment effects among units. Additionally, the DID technique is an effective method that grounds selection in potential programme outcomes and accommodates the selection of unobservable variables (Heckman et al., 1997; Hillesland et al., 2022; Hirano et al., 2003; López

Mourelo & Escudero, 2017) in an attempt to control for omitted variable bias while estimating any causal effect. This technique is a quasi-experimental design, commonly known as the 'controlled before-and-after study' in the field of social sciences that makes use of longitudinal data to obtain an appropriate counterfactual to estimate a causal effect. To do so, it effectively replicates panel data using repeated cross-sectional data. Hence, considering the research background and potential avenues of endogeneity bias relating to factors associated with women's education, the DID approach seems most feasible to be used for making any causal inference.

It should be noted that the issue of endogeneity bias is common in social science experiments and the DID approach can address it to a certain extent. In principle, the problem of endogeneity usually occurs due to various reasons such as omitted variable bias, simultaneity bias, and measurement error. Generally, the problem of omitted variable bias can be diminished by introducing a wide range of control variables in a linear regression model. In this paper, various controls have been added to address the issue of omitted variable bias. However, another common cause of endogeneity bias is 'simultaneity', which can cause simultaneous causality between the predictor variable (x) and the outcome variable (y). One common measure of estimating the desired causal effect and addressing endogeneity involves employing an 'instrumental variable'. Another approach is to generate an exogenous variation, ensuring that the treatment variable remains unaffected by any other factor within the analysed model except for the intended one. This way, the causal effect of the treatment variable and changes in the outcome variable(s) can be estimated over time between a population with both treatment and control groups. In the context of the current paper, a likely source of endogeneity could stem from isolating the effects of education on women's autonomy, as education itself could be influenced by various factors (i.e., HH income level). However, by using the FSSSP stipend policy as an exogenous variation within the model, it is plausible to isolate the effects of education that are solely triggered by the policy itself. This approach helps to ensure that any variation between different age Cohorts (i.e., Cohorts 1, 2, and 3) would have followed parallel paths in the absence of this specific policy. The parallel trend assumption is crucial for the internal validity of any DID model and often proves to be the most challenging to satisfy among all other assumptions. It requires the difference between the 'treatment' and 'control' groups to be constant over time in the absence of treatment (i.e., FSSSP stipend programme in this case). Although there is no statistical test for this assumption, visual inspection of data is often useful for comprehending the underlying postulation. DID requires data from both pre-intervention and post-intervention time periods such as panel data (individual-level data over time) or repeated cross-sectional data (individual or group level). It is mostly used in observational settings where 'exchangeability' cannot be assumed between treatment and control groups. DID relies on a less stringent exchangeability assumption i.e., in the absence of treatment, the unobserved differences between 'treatment' and 'control' groups would remain constant over time. Therefore, DID is a useful technique when randomisation at the individual level is not possible. Besides, DID is typically

implemented in a regression model as an interaction term between time and treatment group dummy variables.

The current paper intends to create an exogenous variation of a similar kind as mentioned above to assess the impact of women's education on their autonomy. A series of cross-section data from the 2007, 2011 and 2014 waves of the Bangladesh Demographic and Health Survey (BDHS) has been used for empirical analysis. A government-funded stipend programme (FSSSP) of Bangladesh that rolled over nationwide in 1994 has been identified to create an exogenous variation causing a regression discontinuity within the survey population. The introduction of FSSSP by the government of Bangladesh in 1994 was aimed at increasing secondary school enrolment for rural girls by reducing their education expenses. The unique design of this education policy intervention allows this paper to generate the required exogenous variation in a way that can be duplicated as a policy shock to boost women's access to education in rural areas of Bangladesh. Therefore, the introduction of this specified programme can be instrumentalised to generate the fundamental base of variation within the survey population and be used as the primary 'identification strategy'. In Bangladesh, secondary education spans from grade 6 to 10; however, the introduction of FSSSP was not simultaneous across all grades. In 1994, the programme was initially offered to girls enrolled in grades 6 and 9. For that reason, girls who were enrolled in grade 9 (in 1994) only received the stipend for 2 years, whereas girls who were enrolled in grade 6 the same year received the stipend for 5 years. This staggered introduction of FSSSP made an allowance of a 5-year stipend for some girls, while some received a partial stipend for only 2 years, and the remaining girls (grade 10 and above in 1994) received no stipend at all. Bearing that in mind, this paper divides the total population of women respondents from the survey dataset (i.e., BDHS) into three distinct age Cohorts based on their reception of stipend (i.e., 2 years, 5 years, and no stipend respectively). Henceforth, the primary unit of analysis for this paper remains ever-married women within the age bracket of 6 to 23 years (in 1994) who are divided into the following three age Cohorts (as shown in Table 2.1).

Table 2.1: Female Age Cohorts by Birth Year

Cohort	Exposure to FSSSP	Birth year and age in 1994
Cohort 1	5 years stipend (Grade 6 to 10)	Born 1983 or after (6-11 years old)
Cohort 2	2 years stipend (Grade 9 and 10)	Born between 1980-1982 (12-14 years old)
Cohort 3	No stipend (Grade 10 and above)	Born in 1979 or before (15-23 years old; upper limit 23)

The stratification of Cohorts illustrated above in Table 2.1 not only reflects the age difference between the three Cohorts but also the variation in the exposure of rural girls corresponding to the educational policy reform that took place over time allowing us to compare Cohorts 1 and 2 with Cohort 3 (control group with no stipend). It is important to note that the stipend programme was not offered to urban girls thus we have an additional control group corresponding to urban girls from all

three Cohorts (Cohort 1-3) to control for the Cohort effects. This allows us to have a dualistic identification strategy where the first one is simply based on the differential eligibility of stipend programmes among female students in rural areas. While the second provision was made by the female secondary students (aged 6-23 years in 1994) in urban areas who were not eligible to receive a stipend (grade 6-10 in 1994) to factor out any simultaneous change across the country. Given that the empirical analysis is fundamentally based on DID estimation, the critical assumption is the constant difference in outcomes over time between urban and rural populations in the absence of FSSSP. This assumption implies that the underlying trend of secondary education for the treatment group (those affected by FSSSP) would run parallel to the control group in the absence of FSSSP. The current paper exploits both temporal (by using the programme timing) and spatial (geographic variation) variations while controlling for time-invariant controls. Understanding the division of the survey population into different Cohorts (Cohort 1 with five years of stipend, Cohort 2 with two years of stipend, and Cohort 3 as the control group with no stipend) is crucial not only for distinguishing exposure to the FSSSP programme but also for the interpretation of subsequent regression analysis. As the main hypothesis of this paper focuses on assessing the impacts of women's education on their autonomy in the HH domain, leveraging the exogenous variation created by differential access to education stipends to estimate any causal changes in autonomy levels. It should be noted that the girls in Cohort 1 would have been educated for longer (stipend for five years) compared to girls in Cohort 2 (stipend for two years) therefore it is expected that exposure to education would exert a greater impact on Cohort 1 compared to Cohort 2 otherwise known as the 'dose-response'.

2.4.2 Empirical Model

The main assumption of our DID model is such that the difference in outcome is constant over time for rural versus urban areas in the absence of exogenous variation i.e., the educational policy reform (FSSSP). To estimate the causal effects, our main empirical specification is a reduced form equation equivalent to the Hahn et al. (2018) as follows:

$$Y_i = \beta_0 + \sum_{j=1}^{2} \alpha_j cohort_{ij} + \theta rural_i + \sum_{j=1}^{2} \delta_j cohort_{ij}\, rural_i + \pi X_i + \mu_i \quad \ldots\ldots\ldots (1)$$

Where, Y_i is defined as the dependent variable which is women's autonomy; $rural_i$ is a dummy variable indicating whether an individual (i) lives in a rural area or not; $cohort_{ij}$ $(j = 1,2)$ is a dummy variable for Cohort 1 and 2 whereas Cohort 3 is the baseline group. Additionally, vector X_i is the set of controls at the individual level (age, religion, education, employment), HH level (characteristics of spouse, number of children, HH wealth index), and fixed effects. As mentioned earlier, the empirical results would simply reflect the difference in various age Cohorts if the paper restricted comparison between Cohort 1 and 2 with the base group (i.e., Cohort 3), hence the urban Cohort (girls from the same age group but not eligible for FSSSP) is used to control for the 'Cohort effect'. Therefore, the paper uses urban girls (corresponding to all three Cohorts) as a control group in addition to using

rural girls in Cohort 3 as the primary control group. In that way, the identification strategy is two-pronged, where the first strategy is to consider the differences in FSSSP programme eligibility among Cohorts 1 and 2 (stipend recipients for 5 and 2 years respectively) with Cohort 3 (older age group ineligible for stipend) in rural areas. While the second strategy is to use the corresponding urban Cohorts (aged 6 to 23 years in 1994) as a control group (non-recipient of stipend) to factor out any simultaneous countrywide changes. In addition, this paper controls for the time trend by including dummy variables for age and survey year as well as division-level fixed effects to absorb any geographic variation. Hence by including age and year fixed effects, this paper controls for birthyear fixed effects. In addition, the control variables representing fixed effects not only capture the time trend by creating dummies for both age and survey years but also capture any mutual geographical difference among all eight divisions of Bangladesh within a given year.

The paper focuses on the 'intent-to-treat' i.e., treatment effect in an unconventional DID method by exploiting a variation in geographic concentration (the stipend programme was only offered in rural areas) and timeline of the FSSSP programme as a key identification strategy. The fundamental premise of this empirical investigation is based upon the DID estimators where we are interested in estimating the coefficient δ which represents the interaction between rural and Cohort dummies. The estimation is based upon the crucial assumption that any variation in outcome variable is otherwise constant over time (in the absence of FSSSP) for both rural and urban areas. Here, estimates of δ_1 and δ_2 respectively reflect the effect of receiving a stipend of 5 years and 2 years where the estimates denote a positive sign only if the stipend could successfully induce eligible girls to stay at school for a longer time period. By interpreting coefficients for interaction between Cohorts (i.e., Cohort 1 and 2) and rural, this empirical model attempted to isolate the effects of education on specified outcome variables (i.e., women's autonomy).

The subsequent section will describe the chosen indicators of women's autonomy in detail and explain how this is an extension of the previous studies in the same field. Even though this paper follows the DID empirical model specified in Hahn et. al. (2018), it varies in terms of outcome variables of interest. The current paper solely concentrates on analysing women's empowerment with four different dimensions of autonomy (using eleven questions related to empowerment from the BDHS dataset) whereas Hahn et. al. (2018) uses a single empowerment index based on only three questions related to empowerment alongside various demographic outcomes. Therefore, it is restricted in its capacity to analyse various domains of women's empowerment (i.e., captured in four different dimensions of autonomy in the current paper) and capture any heterogeneity within different domains of autonomy. It should be noted that not necessarily women's autonomy in a specific domain would automatically translate into another domain. For instance: women's increased autonomy in HH decision-making might not warrant them with greater freedom of movement or reduced exposure to domestic violence. Bearing that in mind, the current paper not only focuses on women's greater bargaining power within the HH domain (i.e., HH decision-making autonomy) like

Hahn et. al. (2018) but also includes other aspects of women's empowerment and well-being such as their mobility (freedom of movement i.e., physical autonomy) and their perception towards domestic violence (i.e., perceptual autonomy).

2.4.3 Outcome Variables: Indicators of Women's Autonomy

As discussed in the literature review section, women's autonomy is a latent trait which cannot be measured directly, thus proxy variables are often used to calculate women's autonomy at a given time. In this paper, various direct responses from BDHS survey data, relating to women's authority and control over their own lives and HH resources, are used to analyse the effects of their education (more specifically secondary education) on women's autonomy in the HH domain of Bangladesh. Given the nature of data (secondary) and availability of autonomy-related questions in the BDHS dataset, the following outcome variables are chosen to be analysed in this paper.

1. Financial autonomy
2. Physical autonomy
3. HH Decision-Making autonomy
4. Perceptual autonomy

For measuring the last two outcome variables, the principal component analysis (PCA) technique is used to create an index for each outcome variable i.e., HH decision-making and perceptual autonomy.

2.4.3.1 Financial Autonomy

The first outcome variable indicates women's control over their earnings as a proxy for their financial independence. For this purpose, a specific question (v739) from the individual recode (IR) of the BDHS dataset has been used that asks women respondents "who usually decides how to spend respondent's earnings". The recorded responses to this question are as follows: respondent alone, respondent and husband/partner, husband/partner alone, and someone else. Based on the aforementioned responses, two separate dummy variables have been created i.e., solo, and joint financial decision-making (DM). In the first case, women have complete control over their income and income-related decisions while in later cases both husband and wife make the financial decisions jointly.

2.4.3.2 Physical Autonomy

The second outcome variable indicates women's freedom of movement as a response to their access to education. For this purpose, a specific question (s823b) from the individual recode (IR) of the BDHS dataset has been used that asks women respondents whether they are "able to go to health centre alone. It is comprehended that this single variable is not sufficient to capture the extent of women's mobility in public domains but within its limit, it is the most feasible representation of women's exposure to public spheres, especially in rural areas where women are traditionally

secluded within their HH domain. The recorded responses to this question are as follows: yes, alone with younger children, no with husband, no with others. Based on the responses, a dummy variable has been generated for women who can go to the health centre alone (yes=1, no=0)

2.4.3.3 HH Decision Making Autonomy

The third outcome variable indicates women's participation in HH decision-making and for this purpose, an index based on respondent's ability to make various HH-related decisions have been considered. In the BDHS dataset, there are four different types of decisions within the HH domain that have been featured such as the person who usually decides on respondent's health care (v743a), the person who usually decides on large HH purchases (v743b), the person who usually decides on visiting family members or relatives (v743d) and who has the final say regarding child healthcare (s823). Based on the responses for each item, a dummy variable is created where if the women make the decision alone then the value is one and zero otherwise (i.e., yes=1 and no=0). Afterwards, the PCA technique has been used to generate an index that represents women's overall HH decision-making (DM) within the HH domain. Table 2.2 represents the sampling adequacy and reliability scores of the index created for the analysis. Typically, a Kaiser-Meyer-Olkin (KMO) test is used to assess the sampling adequacy and it should range from 0 to 1; with 0.60 recommended as the minimum value for a suitable factor analysis (Tabachnick & Fidell, 2018, p. 661). The result shows an overall KMO value of 0.792, which is higher than the cut-off points of 0.60. Moreover, KMO values for each HH decision-making autonomy variable range between a minimum of 0.772 to a maximum of 0.814, representing the sampling adequacy. Additionally, to measure the internal consistency of the index, Cronbach's alpha (α) with a minimum value of 0.7 has been used as suggested by Hair et al. (2013, p. 123). The result shows a Cronbach's alpha (α) value of 0.810, which represents an internally consistent and reliable index. Therefore, it can be concluded that the index measure for HH DM autonomy is consistent and reliable.

Table 2.2: Sampling Adequacy and Reliability for HH Decision-Making (DM) Autonomy Index

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	
Solo DM Healthcare	0.814
Solo DM Child Related	0.811
Solo DM HH Purchase	0.779
Solo DM Family visit	0.772
Overall KMO	0.792
Cronbach's alpha (α) = 0. 810	

2.4.3.4 Perceptual Autonomy

The fourth outcome variable represents women's perception towards domestic violence. Based on women respondents' justification towards wife beating under various circumstances, a composite index is generated to demonstrate women's perception towards domestic violence. In the BDHS dataset, there are four different situations where respondents are asked whether they believe that

wife beating is justified such as beating justified if the wife: goes out without telling her husband (v744a), neglects the children (v744b), argues with husband (v744c), or refuses sex with husband (v744d). Based on the responses for each of the above-mentioned items, a dummy variable is generated where the value is one if women said yes i.e., they believe that beating is justified and zero otherwise (yes=1, no=0). Afterwards, the composite index representing women's perception towards physical violence is created using the PCA technique. Table 2.3 represents the sampling adequacy and reliability scores of the index created for domestic violence. With an overall KMO value of 0.773, and each domestic violence variable ranging between 0.749 to 0.825 shows the sampling adequacy of the measure. Additionally, a Cronbach's alpha (α) value of 0.777 represents an internally consistent and reliable index. Therefore, it can be concluded that the index measure for domestic violence is consistent and reliable.

Table 2.3: Sampling Adequacy and Reliability for Domestic Violence Index

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	
Beating justified if the wife goes out without permission	0.765
Beating justified if the wife neglects child	0.749
Beating justified if wife argues	0.773
Beating justified if a wife refuses sex	0.825
Overall KMO	0.773
Cronbach's alpha (α) = 0. 777	

However, it is implied that women's perception towards domestic violence and their actual experiences (prevalence of domestic violence) can be different. However, it is assumed that women's perception towards wife beating is reflective of their overall attitude and tolerance of domestic violence and marital abuse. Besides, there is no in-depth data representing the actual prevalence of domestic violence and IPV against women in the context of Bangladesh at the national level. Thus, this indicator of women's perceptual autonomy is used as a proxy to measure how women's attitude towards domestic violence changes with education over time. The author intends to use a subsequent paper (chapter four) to collect primary data on women's exposure to IPV including their perception and intergenerational experience of domestic violence for a comprehensive analysis.

2.4.4 Data Collection

Since 1984, DHS has collected information on women's demographic indicators, socio-economic status, health and nutrition, and empowerment across different domains. In general, DHS collects information from women within a certain age (i.e., between 15 to 49 years) on various topics such as certain HH decision-making authorities, control over earnings and financial resources, freedom of movement, sexual and reproductive rights, attitudes towards domestic violence etc. (Durrant & Sathar, 2000; Kishor & Johnson, 2006). The nature of the DHS dataset is extensive and comprises both individual and HH characteristics making an allowance to analyse women's empowerment via indicators of their autonomy rather accurately. BDHS covers a total of 600 primary sample points (PSU) clustered at the "thana" level, which is the smallest administrative tier of the government of

Bangladesh. This paper used three survey rounds of the BDHS dataset (i.e., survey year 2007, 2011 and 2014) for multivariate regression analysis. The total number of observations (n) after appending three survey rounds is 46,701 (BDHS 2007=10,996, BDHS 2011=17,842 and BDHS 2014=17,863) in a reduced dataset with 65 variables chosen for primary analysis. As explained before, two separate Cohorts (Cohort 1 with five years exposure and Cohort 2 with two years exposure to FSSSP education policy) are created along with the base group (i.e., Cohort 3) to examine the effects of women's increased access to education on their autonomy.

2.5 Data Analysis and Findings

2.5.1 Descriptive Statistics

In the following Table 2.4, a summary statistic of the primary variables of interest is presented. Around 65% of women in the survey sample reside in rural areas of which approximately 49% belong to Cohort 1 and 10% belong to Cohort 2. The proportion of rural women who have been exposed to the five-year stipend is 33% while only 6% of rural women have received the two-year stipend for secondary education. Subsequently, several indicators representing individual characteristics of women respondents including their age, religion (Muslim=1), and educational attainment (in total number of years) are reported. It is apparent (from Table 2.4) that most women are Muslim (89%). The average of completed schooling (in years) for women is 5.13 years while it is 5.49 years for men. Hence, it is evident that the average education (in total number of years) is slightly lower for women compared to their husbands in the survey sample. The relative age gap between spouses is 9.18 years on average. Finally, fertility-related indicators demonstrate that the average age of women at first childbirth is 18 years and approximately 58% of women use contraception as a measure of fertility control within the survey sample.

Table 2.4: Descriptive Statistics (BDHS 2007, 2011, and 2014)

Variables	Mean	SD	Minimum	Maximum
Rural	.65	.47	0	1
Cohort 1	.49	.49	0	1
Cohort 2	.10	.30	0	1
Cohort 1*Rural	.33	.47	0	1
Cohort 2*Rural	.06	.25	0	1
Wealth Index	3.12	1.41	1	5
Age	30.90	9.25	13	49
Religion (Muslim=1)	.89	.31	0	1
Women's Education (years)	5.033	4.643	0	18
If Women Employed(yes=1)	.22	.417	0	1
Age at first child born(years)	17.91	3.33	10	46
Number of Children	2.26	1.56	0	12
Contraceptive Use (yes=1)	.58	.49	0	1
Husband's Education (years)	5.49	5.27	0	18
Husband's Age	39.69	11.55	15	99
Relative Spouse Age Gap	9.18	6.16	-24	83

2.5.2 Empirical Findings: Impact of FSSSP on Women's Education

We begin our empirical analysis with a multivariate regression to estimate the effect of FSSSP on the completion of women's secondary education (in column 3). In addition to women's completion of secondary level education, the effects of FSSSP on their completion of primary level (in column 2), higher studies (in column 4), and total years of education (in column 5) are evaluated to verify whether there is any spillover effect of this education policy. The rationale for running this regression before analysing the key outcome variables (i.e., women's autonomy in all four domains) is to check whether this exogenous shock (i.e., FSSSP) influenced the intended target group i.e., rural women before making any causal inference. Previous studies have documented a sharp increase in girl's school enrolment soon after the aforesaid education policy implementation in 1994 throughout Bangladesh (Hahn et al. 2018). A similar trend is observed in Figure 2.1, where a sharp and constant increase in female enrolment is visible over a period of time.

Table 2.5: Effect of FSSSP Policy on Women's Education

Variables	Primary	Secondary	Higher Education	Total Education in Years
Cohort 1	0.0147	0.0284**	-0.0306***	-0.110
	(0.0113)	(0.0112)	(0.00679)	(0.107)
Rural	0.0659***	-0.103***	-0.127***	-2.495***
	(0.00653)	(0.00648)	(0.00394)	(0.0621)
Cohort 1*Rural	-0.0180*	0.109***	0.0413***	1.541***
	(0.00930)	(0.00923)	(0.00561)	(0.0885)
Cohort 2	0.0112	-0.00364	0.00687	0.261**
	(0.0130)	(0.0129)	(0.00783)	(0.124)
Cohort 2*Rural	-0.000656	0.0582***	-0.0116	0.299**
	(0.0151)	(0.0150)	(0.00912)	(0.144)
Controls	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes
Constant	-0.0322	0.979***	0.111***	8.825***
	(0.0564)	(0.0559)	(0.0340)	(0.536)
Observations	46,686	46,686	46,686	46,686
R-squared	0.010	0.111	0.048	0.133

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2.5 shows that there are visibly larger effects across all measures of education for Cohort 1 which had more exposure to the stipend policy (i.e., five years) compared to Cohort 2 (i.e., two years) which is reflective of the 'dose-response'. It is apparent that the dose-effect is less for women in Cohort 2, which is expected given their exposure to education (via stipend programme) is smaller compared to women in Cohort 1. The interaction effect of Cohort 1 and rural represents the sub-group of women who were granted with five-year stipend under FSSSP. Similarly, the interaction effect of Cohort 2 and rural represents the sub-group of women who were granted a two-year stipend

in the same stipend programme. Colum 3 indicates that the probability of completing secondary education increases by 10.9% for rural girls in Cohort 1 whereas the probability of completing secondary education increases by 5.8% for girls in Cohort 2 at a 1% level of significance. However, the spillover effect of the secondary level stipend is only significant for Cohort 1 where women transcend to a higher level of education (graduate level and up). The likelihood of rural women's progression into higher level education increases by 4.13% for Cohort 1 at a 1% level of significance. There is no statistically significant spillover effect for rural women belonging to Cohort 2. Hence it can be assumed that rural women, exposed to the stipend programme for a longer period, are more likely to enrol into higher studies after completion of secondary education. These results are robust to the inclusion of additional control variables (such as age, religion, HH size, number of children, and HH wealth level) and fixed effects (survey year and division level). However, the detailed results are not presented within the discussion as this paper refrains from making any causal interpretation of the control variables based on the assumption that these controls are most likely to be endogenous.

Based on the above-illustrated findings and statistical significance, it can be presumed that using FSSSP as an exogenous instrument to create a regression discontinuity within the DID model is justified to determine the causal relationship between education and women's autonomy in Bangladesh. Table 2.5 shows that there is a significant number of rural women who completed secondary education and progressed into a higher level of education on account of the aforesaid education policy (i.e., FSSSP) which would not be the case otherwise. Therefore, this exogenous variation can be used to isolate the effects of education on different sub-groups of women to analyse their autonomy.

2.5.3 Impact of Women's Education on Their Autonomy

The following discussion aims to scrutinise the impact of women's education on four distinct outcome variables that represent women's autonomy within the HH domain. Each of the following tables presents both OLS and DID estimates, but our primary focus lies on the DID estimation as it is more reliable and accounts for endogeneity. In the following tables, coefficients of control variables are also reported but it would be best to refrain from posing any causal interpretation on account of endogeneity issues. The primary interest is in estimating the coefficients representing an interaction effect between Cohorts (Cohort 1 and 2) and rural dummies where the interaction represents women's exposure to the FSSSP stipend programme for different durations with Cohort 3 as the base group with no exposure.

Table 2.6 presents women's autonomy in financial decision-making (both solo and joint) as the main dependent variable and primary results indicate that OLS estimates for both solo and joint financial decision-making (DM) autonomy are statistically insignificant. However, DID estimates indicate that women's exposure to education leads to an 8.42% increase in their ability to make an independent financial decision at the 1% level of significance, specifically for those who received a

five-year stipend (Cohort 1) compared to those who didn't benefit from same educational exposure. Simultaneously, exposure to secondary education decreases women's involvement in joint financial decision-making (with their husbands) by 8.63% which is statistically significant at the 1% level for rural women in Cohort 1. Thus, it can be translated that education enables women to take more autonomous control over financial decision-making, thereby reducing their spousal dependence on making a joint financial decision. The reason for such inference is grounded in the hypothesis that heightened exposure to education prompts women to make more independent financial decisions (referred to as solo decision-making). This inclination could potentially counterbalance their involvement in joint decision-making with their partners, signifying a greater degree of financial independence. However, this pattern holds no statistical significance for rural women in Cohort 2 in either solo or joint financial decision-making. Then again, it is expected since dose effects for rural women in Cohort 1 are higher since they were exposed to secondary education for a longer period (five-year stipend programme) compared to rural women in Cohort 2 (two-year stipend programme). This finding is consistent with the previously estimated response where less exposure to the stipend programme yields a lower dose response.

Table 2.6: Effect of Women's Education on Financial Autonomy

Variables	**(OLS)** Solo financial DM	**(DID)** Solo financial DM	**(OLS)** Joint financial DM	**(DID)** Joint financial DM
Women Education	-0.00245		0.00184	
	(0.00227)		(0.00236)	
Cohort 1		-0.0156		0.0287
		(0.0247)		(0.0262)
Rural		-0.0849***		0.0527***
		(0.0149)		(0.0158)
Cohort 1*Rural		0.0842***		-0.0863***
		(0.0209)		(0.0222)
Cohort 2		-0.0245		0.0110
		(0.0266)		(0.0282)
Cohort 2*Rural		0.0513		-0.0467
		(0.0315)		(0.0334)
Controls	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes
Constant	-0.0311	-0.109	0.526***	0.549***
	(0.125)	(0.120)	(0.130)	(0.127)
Observations	6,763	9,668	6,763	9,668
R-squared	0.027	0.040	0.022	0.028

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The following Table 2.7 reports both OLS and DID estimates for women's physical autonomy (an indication of freedom of movement). Here, women's physical autonomy is the main dependent variable with a primary focus on the interaction effect between rural and Cohort dummies (both

Cohort 1 and 2) given that this interaction represents women's exposure to secondary education for different durations (five-year stipend recipient for Cohort 1 and two-year stipend recipient for Cohort 2) respectively. Again, the base group is the same, i.e., Cohort 3 with no exposure to the stipend programme (FSSSP). Here, the OLS estimate illustrates that women's education (measured as in total years of education) is marginally significant (at a 5% level of significance) in increasing the likelihood of their enhanced physical mobility. However, the DID estimate, more likely to account for plausible endogeneity, is not statistically significant. Thus, this paper fails to provide any substantial evidence in support of the argument that women's education has any effect on their freedom of movement. However, it can be argued that such insignificance is predominantly driven by the poor measurement of women's physical autonomy given that there is only one question in the BDHS dataset relating to women's mobility in public spheres. BDHS survey contains a question where women are asked if they can go to health centres without an accompanying adult and the autonomous response to this question for women is to go to the health centre with a child. Thus, it could be hypothesised that even women with no education are allowed to go to health centres alone as by tradition women go to health centres with their children in Bangladesh. Nonetheless, it is not within the scope of current research to dissect the underlying reasons for insignificant estimation hence it can be concluded that no effect of women's education on their physical autonomy is evident.

Table 2.7: Effect of Women's Education on Physical Autonomy (Mobility)

Variables	**(OLS)** women's mobility	**(DID)** women's mobility
Women Education	0.000739**	
	(0.000358)	
Cohort 1		-0.00399
		(0.00746)
Rural	0.0208***	0.0247***
	(0.00328)	(0.00468)
Cohort 1*Rural		-0.00661
		(0.00620)
Cohort 2		-0.000244
		(0.00860)
Cohort 2*Rural		-0.00744
		(0.0100)
Controls	Yes	Yes
Fixed Effects rural	Yes	Yes
Constant	0.0605*	0.0777**
	(0.0349)	(0.0380)
Observations	43,652	43,652
R-squared	0.047	0.047

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2.8 presents both OLS and DID estimates for women's HH decision-making autonomy, which is an indication of their greater authority and control over HH-related decisions. A composite index has been generated as the main outcome variable based on the respondent's ability to make certain HH decisions (i.e., own healthcare, major HH purchase, child health care, and visiting family members and relatives). Here, the primary focus is on the interaction effects between rural and Cohort dummies (both Cohort 1 and 2) respectively which reflect the impacts of education on women's decision-making autonomy. Given that the paper emphasises, DID estimation to mitigate endogeneity bias, the lack of statistical significance in terms of OLS estimation is disregarded. As illustrated in the following Table 2.8, the likelihood of women's autonomous control over HH decision-making increases by 16.7% at a 1% level of statistical significance for rural women in Cohort 1 because of prolonged education exposure. Simultaneously, the likelihood of women's autonomous control over HH decision-making increases by 9.29% for rural women in Cohort 2 at a 10% level of statistical significance because of prolonged education exposure. Corresponding to the dose effect in the earlier discussion, this finding substantiates the fact that the estimated dose-response is higher for women who have been exposed to education for a longer period (Cohort 1 with five-year stipend) than those who have had a lower exposure to education (Cohort 2 with two-year stipend). Based on this empirical illustration, it can be deduced that women's education grants them greater autonomy in terms of HH decision which is indicative of their enhanced bargaining power and authority within the HH domain.

Table 2.8: Effect of Women's Education on HH Decision-Making Autonomy

	(OLS)	**(DID)**
Variables	HH DM Index	HH DM Index
Women's Education	-0.00315	
	(0.00299)	
Cohort 1		-0.173***
		(0.0388)
Rural	-0.0261	-0.135***
	(0.0191)	(0.0244)
Cohort 1*Rural		0.167***
		(0.0323)
Cohort 2		-0.0647
		(0.0447)
Cohort 2*Rural		0.0929*
		(0.0520)
Controls	Yes	Yes
Fixed Effects	Yes	Yes
Constant	-2.284***	-1.930***
	(0.204)	(0.198)
Observations	32,648	43,491
R-squared	0.049	0.043

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Finally, the last outcome variable of interest is women's perceptual autonomy, which is reflective of their perception towards domestic violence. As before, the primary interest is in the interaction effects between rural and Cohort dummies with different educational stipend exposure. Here, the ultimate motive is to investigate whether women's education impacts their perception of domestic violence (women's justification of domestic violence perpetrated by their husbands under various circumstances). In the following Table 2.9, the OLS estimate illustrates that the effect of women's education (measured as in total years of education) on their perception towards domestic violence is marginally significant at a 5% level. Whereas the DID estimate indicates that women's exposure to education decreases the likelihood of justifying domestic violence (as in wife beating) by 7.5% which is statistically significant at a 5% level for rural women belonging to Cohort 1. However, there is no evidence to derive a similar inference for Cohort 2 hence it is difficult to ascertain a dose effect for women who have been exposed to education for a shortened period. However, it is a reasonable deduction given perception towards domestic violence is reflective of the underlying social norms and gendered ideologies in a society which is expected to shift rather slowly and gradually over time instead of a rapid alteration.

Table 2.9: Effect of Women's Education on Perceptual Autonomy

Variables	**(OLS)** Perception towards Domestic Violence	**(DID)** Perception towards Domestic Violence
Women's Education	-0.00704**	
	(0.00293)	
Cohort 1		-0.0303
		(0.0381)
Rural	0.228***	0.268***
	(0.0166)	(0.0221)
Cohort 1*Rural		-0.0750**
		(0.0315)
Cohort 2		-0.0478
		(0.0440)
Cohort 2*Rural		-0.0621
		(0.0512)
Controls	Yes	Yes
Fixed Effects	Yes	Yes
Constant	-0.312***	-0.341***
	(0.100)	(0.120)
Observations	34,327	46,699
R-squared	0.013	0.014

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

2.6 Discussion

The current paper has found mixed evidence of education's impact on various spheres of women's autonomy. The collective findings of this paper diverge from those of Mahmud et al. (2012) concerning the impact of education on two specific autonomy indicators in the context of Bangladesh. While their study unveiled that education didn't notably affect women's autonomy in HH decision-making or resource control, the current paper has found that women's education notably improves financial decision-making autonomy. Alternatively, Mahmud et al. (2012) have found that education significantly influenced women's freedom of mobility whereas the current paper finds no such association between education and women's physical autonomy (mobility). One of the reasons on account of which education facilitates women's financial decision-making autonomy might stem from its ability to grant access to vital resources and information necessary for making an informed choice and a rational financial decision. For example, Goldman and Little (2015) show that resources like formal education can encourage personal agency which ultimately helps women in Tanzania to enhance their financial knowledge and rights to make any decision (i.e., land ownership, ability to make HH and child-related decisions). Furthermore, with a higher level of education, women can attain a stronger bargaining position within the HH dynamic (Fletschner, 2009; Kazembe, 2020). Hence, education can provide women with greater negotiation skills and permit them to assert their financial preferences within their HH domain. Finally, women's education serves as a gateway for their better employment opportunities, financial independence, and a greater voice in HH-related financial decisions (Bussemakers et al., 2017).

Alternatively, one of the reasons for the insignificant association between women's education and their mobility could be attributable to weak measurement, given that there is only one question in the BDHS dataset relating to women's freedom of movement (i.e. if they are allowed to visit hospital or health centres alone without an accompanying adult). In general, social norms and traditions grant women specific allowances for visiting places like hospitals on account of perceived necessity or social approval. In the social context of Bangladesh, hospitals are often seen as essential locations where an individual's need for healthcare can supersede specific social restrictions generally imposed on women in an alternate situation. Furthermore, hospital visits most commonly involve women being accompanied by their young children in Bangladesh irrespective of their educational background. Besides, cultural norms and traditional values might outweigh the influence of education in confronting prevalent social restrictions relating to women's mobility and public exposure in certain contexts. Despite being highly regarded, education does not excuse people from social norms (Holmelin, 2019). For instance, Narayan (2018) revealed that women continue to face significant cultural oppression and societal constraints despite being educated, financially stable, and knowledgeable about their legal rights. Furthermore, Mahmud et al. (2012) stated that the practice of 'purdah' confines women within the HH domain and often necessitates permission from their husbands and/or in-laws before leaving the house. These limitations could be rooted in religious

beliefs, societal expectations, safety concerns, and traditional gender roles that might vary across different social contexts and circumstances.

Then again, this paper has found that education improves women's authority and control over the HH decision-making process, which is indicative of their enhanced bargaining power. One of the reasons for such a finding could be that education empowers women by bolstering their confidence, and skills (Duflo, 2012) and enables them to articulate their opinions and actively engage in the HH decision-making process. For instance, previous studies (i.e., De Jong et al., 2017; Kantor, 2009) have highlighted that education improves women's voice in HH decision-making and bargaining power. Moreover, education enriches women's knowledge, enables them to process information and develops their cognitive behaviour to make an informed decision (Samarakoon & Parinduri, 2015) which ultimately empowers them. Furthermore, female education has the potential to challenge traditional gender roles and societal norms (Cools & Kotsadam, 2017; Jewkes, 2002) which in turn gradually shift society's perceptions regarding women's roles in decision-making. For example, multiple studies in India have found that women's increased education is most likely to advance their decision-making autonomy in HH purchases and chores (i.e., Sedai et al., 2021), specifically in a joint-family set-up where gender norms are stricter for women (i.e., Dhanaraj & Mahambare, 2019).

Furthermore, the current paper has found women's education to significantly influence their perception towards domestic violence as educated women are less likely to justify wife beating. This is in accordance with previous studies where women's education has been found to be protective against IPV (i.e., Bates et al., 2004; McCarthy, 2019; Vyas & Watts, 2009). Education can act as a form of *'conscientization'*[4] and hence can create an environment for women where they can challenge existing belief systems that perpetuate their oppression (Goldman & Little, 2015). Hence, education could potentially help women to develop resistance against IPV. Moreover, education has the potential to foster self-efficacy and alleviate perceived gender disparity within a marriage hence it is expected to consequently reduce domestic violence (Fakir et al., 2016). Additionally, women's education is effective in improving gender equality and promoting empowerment through increased self-confidence and a sense of belonging within social communities (Eger et al., 2018) thus it can function as a deterrent to IPV. However, the current paper finding suggests that the significance of education on women's perceptual autonomy (perception and acceptance of domestic violence) is limited to only Cohort 1 as no statistical significance is evident for women in Cohort 2. One of the reasons could be that the BDHS dataset doesn't report the actual occurrence of domestic violence but rather merely contains women's perceived justification towards wife beating. Hence, it is difficult to ascertain whether women's education exerts any definite effect in reducing their acceptance of domestic violence. Concurrently, multiple studies raise a concern regarding women's education and its association with their exposure to domestic violence and/or IPV. For instance, Srinivasan and Bedi

[4] Conscientization refers to the critical awareness and empowerment of marginalised groups by recognising social, political, and economic disparities, enabling them to initiate transformative actions in their circumstances (Freire, 2000).

(2007) found women's education to be insignificant in reducing the likelihood of marital violence while husbands with higher education are less likely to perpetuate violence in rural India. Besides, studies have found proof that women's education can worsen their situation in terms of domestic violence. For instance, Erten and Keskin (2018) showed that an increase in rural women's education led to no change in the prevalence of physical violence but increased their exposure to psychological violence in Turkey. Similarly, Hosein (2019) showed that an increased level of women's education can often lead to male backlash in Trinidad and Tobago. Therefore, it is challenging to deduce any universal conclusion with regard to women's education and its association with their exposure to domestic violence without further investigation. Moreover, the role of education varies across different contexts thus its hypothesised relationship with women's autonomy cannot remain consistent across all situations (Bussemakers et al., 2017; Pradhan et al., 2015; Spierings, 2016).

Besides, the current paper found a significant variation between rural women in Cohorts 1 and 2 who have been exposed to secondary education for different durations (five years and two years respectively) for all three domains of autonomy except for physical autonomy. Interestingly, these findings contradict previous research by Samarakoon and Parinduri (2015), where they have found no such evidence that a longer school year can improve women's decision-making authority, women's asset ownership, or community participation. However, our findings correspond to a 'dose effect' signifying the fact that intensity of education exposure (i.e., duration of FSSSP) significantly influences women's financial independence, their role in HH decision-making, and capacity to resist IPV. Overall, the current paper points out that educational attainment has stronger impacts on three different aspects of women's autonomy reflecting their increased financial authority, bargaining power, control, and resistance to domestic violence within the HH domain of Bangladesh.

2.7 Conclusion and Limitations

The primary objective of this paper is to examine the effects of women's education on their various dimensions of autonomy in the context of Bangladesh. To analyse the lasting impacts of women's education while considering potential connections between women's autonomy and their educational levels, the current paper has used a stipend policy (FSSSP) introduced by the Bangladesh government in 1994 to serve as a source of external variation in both geographic concentration and program duration. Using the DID method, the paper found mixed evidence with regard to education's impact on various spheres of autonomy. It is evident that women's education significantly increases their autonomy in financial decision-making (solo) but is rendered ineffective in enhancing their freedom of movement. In addition, women's autonomy in HH decision-making is found to be significantly improved as a result of their increased education, which is indicative of their authority and bargaining power within the HH domain. There is also evidence of women's altered perception towards domestic violence due to their educational attainment. However, this is not sufficient to claim that there is any change in the actual prevalence of domestic violence to women's increased

education given contradictory evidence is found in existing literature. It is often apprehended that women's presumed sense of empowerment can be far away from their perceived reality. For instance, educated women who are not employed might actually be in a more disadvantaged situation as their heightened self-esteem and increased social awareness tend to challenge the existing gender norms and male-dominated traditions without 'exit options'. This, in turn, might trigger male backlash and induce marital conflicts leading to domestic violence.

However, the merits of women's education cannot be overlooked based on the evidence gathered in this paper, bearing in mind that some dimensions of women's autonomy are more influenced by education than others. Notably, it can be concluded that study findings are important given that key indicators of sustainable development such as education and/or health are persistent across generations (Bhalotra & Rawlings, 2011). Therefore, it can be suggested that women's education can have significant impacts on the later stages of their lives in the form of enhanced autonomy which not only contributes to individual benefits but also affects the HH's wellbeing via positive socio-economic outcomes. The most important policy implication of the current paper, from the perspective of a developing country, would be acknowledging the long-term effects of women's education in improving their socio-economic status and level of empowerment. In this regard, the current paper can be instrumental in formulating similar development programmes and policy prescriptions targeting women not only in Bangladesh but other developing countries with similar socio-economic and cultural contexts. Therefore, this paper would propose a rather integrated approach towards empowering women through pathways of autonomy which would combine their access to education with complementing income generation activities as well as address issues of domestic violence and gender discrimination against women. The cumulated evidence of this paper suggests that policy-driven government initiatives in promoting women's access to resources can be particularly instrumental in a social setting where the prevalence of early marriage and lower access to education are common phenomena among girls. However, it should be accompanied by sustained development interventions that facilitate the process of women's empowerment not only as an instrument to further HH welfare and other objectives but also in its own merit.

Given the latent nature of women's empowerment in addition to complex characteristics such as time variance and subjectiveness regarding individual and context-specific factors, any direct measurement of empowerment was not possible. Therefore, women's autonomy has been measured as a proxy for their empowerment which can be regarded as a limitation. To further complicate the matter, autonomy itself is not a well-measured indicator of women's empowerment but this is the closest proxy considered in existing literature. However, autonomy is one of the most commonly used indicators of empowerment in the existing literature and the current paper has examined multiple dimensions of women's autonomy (i.e., financial, HH decision-making, physical, and perceptual) within the HH domain in an attempt to encompass the comprehensive nature of empowerment as much as possible. Since the current paper uses a secondary dataset, the nature of survey data (i.e.,

cross-sectional) limits the extent of analytic interpretations. The reliance on cross-sectional data constitutes difficulty in making any longitudinal observation of the same women to make inferences over a long period of time. However, multiple rounds of survey data (BDHS) have been utilised for the quantitative analysis to counterweigh that limitation by allowing a timeline of more than two decades. In addition, there is no data on the actual occurrence of domestic violence against women, instead, the paper uses women's perception towards wife beating as a proxy for their tolerance of abuse. The lack of available data in the BDHS dataset or any national-level survey data in Bangladesh makes it difficult to make any insinuation about women's exposure to domestic violence or to incorporate this variable within the empowerment framework. It has been recurrently suggested that women's enhanced autonomy as a result of their access to resources (such as education, employment, capacity building etc.) can often challenge the existing gender relations in a male-dominated society exposing women to greater risk of domestic violence. However, this supposition cannot be tested within the scope of the current investigation, which the paper aims to explore in a subsequent chapter (chapter four). Also, data restrictions prevented this paper from assessing the degree to which contextual factors (i.e., social norms, cultural influences, and husbands' perceptions towards empowerment) influenced the association between education and women's empowerment. Hence, these aspects stand as potential opportunities for future research endeavours. Within the realms of methodological restrictions and various limitations, this paper sheds light on the nexus between education and the empowerment of women through pathways related to autonomy from a wider perspective. It emphasises the pivotal role of education in influencing different facets of women's empowerment. Improving access to education holds the potential to diminish socio-economic disparities, reduce gender gaps and enhance women's empowerment. Hence, this paper suggests that these findings can contribute to shaping future development agendas and policy initiatives aimed at advancing women's empowerment in Bangladesh.

Chapter 3

An Essay on Working Women's Journey to Empowerment via Pathways of Autonomy in Bangladesh

Abstract

This paper examines women's financial and household (HH) decision-making autonomy in association with their full-time employment opportunities using an instrumental variable (IV) approach. The empirical analysis in this study has relied on cross-sectional survey data from the Bangladesh Demographic and Health Survey (BDHS 2014). To estimate women's employment, an instrumental variable—specifically, the district-level employment rate of women—has been obtained externally from another national survey dataset, the Bangladesh Bureau of Statistics (BBS 2011). The district-level employment rate for women is an ideal instrument because theoretically, it should be exogenous to individual women's autonomy but should influence women's employment status. Furthermore, several control variables have been incorporated to address demographic and HH-level characteristics, alongside fixed effects, and time-invariant factors, aiming to mitigate potential endogeneity concerns. While results indicate that women's employment significantly increases their HH decision-making autonomy, interestingly it is ineffective in enhancing their financial autonomy within the HH domain. The findings remain consistent even after conducting a robustness check with a reduced sample, specifically including only women whose husbands serve as the HH heads. This has been used to ensure the exclusion of women who might exhibit autonomy regardless of their employment status and to strengthen the validity of the results. Furthermore, various subsample analyses have been presented to encapsulate the diversity in women's employment experiences concerning their autonomy within different subgroups. This includes examining conditional differences based on their education, employment sector, and place of residence.

Keywords: *Empowerment, Autonomy, HH decision-making, Employment, Financial autonomy, Control over resources, Social norms, Gender relations, Bangladesh*

3.1 Introduction

Historically, men had greater access to resources and formal employment opportunities with higher wages while women mostly constituted the informal labour force with a lower wage rate in the agriculture and industrial workforce in most developing countries (Ross & Wright, 1998). In fact, women's ability to seek employment beyond their households (HH) has been systematically denied in many cultures, posing a significant infringement on gender equality and individual freedom (Presser & Sen, 2000). Moreover, being subjected to different gender stereotyping (i.e., physically and emotionally weak to work under pressure and cope with stress) and pre-conceived perceptions about their abilities, women faced significant barriers to their participation in the formal labour market (Streets & Major, 2014). However, since 1970, the concept of women actively taking part in economic and social development gained global momentum. Especially in 1995, United Nations (UN) conferences for women in Beijing emphasised on improving women's access to the formal labour market as a crucial element of "empowering women" (Tinker, 1990). Subsequently, in the quest for economic reform and development, various countries (in South Asia, Africa, and Latin America) carefully promoted women's employment in export-oriented manufacturing and industrialisation (Sassen-Koob, 1984; Soni-Sinha, 2006; Tamborini, 2007). As a result, women's access to wage employment emerged as a prominent aspect of post-colonial economic and social transformation in developing nations (Ward, 1990). According to Engels (1988), recognising women's participation in the formal labour market is pivotal to breaking free from servitude within patriarchal and social power structures. Additionally, Tiano (1986) argued that women's employment and access to financial resources would reduce their dependence and set them free from societal subordination. Besides, it has been argued that women's participation in financial activities benefits not only them but society at large (Presser & Sen, 2000). Pertinently, international stakeholders have realised that women are key to the success of social policy implementation and have collaborated to empower women via income generation, aiming to reduce poverty and improve HH welfare (Molyneux, 2006).

Considering such a nexus between women's empowerment and employment, the government of Bangladesh prioritised empowering women in the early 1990s through employment generation, institutional transformation, and implementation of gender-sensitive policies to enable their active participation and contribution to targeted development strategies such as millennium development goals (MDG) and sustainable development goals (SDG) (Haque et al., 2020). As a result, women became the primary labour force in Bangladesh's export-driven ready-made garment (RMG) industry and the main driving force behind rapid economic development and industrialisation (Khan, 2005). Simultaneously, the introduction of microcredit granted rural women access to financial services for the first time in Bangladesh. With these opportunities, women who have previously been denied the means to participate in income generation activities (IGAs) gained an opportunity to be financially independent. However, such massive changes in the socio-economic landscape of a patriarchal society like Bangladesh were bound to bring in a lot of altering frictions in the prevailing gender roles

and power dynamics. Despite the well-known fact that Bangladesh is often praised for making remarkable progress towards women's empowerment particularly in areas of education, labour force participation, and political representation; gender inequalities and biasness are still persistent in financial participation and opportunities. According to The World Economic Forum (2022), Bangladesh is globally ranked 139th in economic participation and opportunity in the gender parity sub-index with specific indicators like labour force participation ranked at 132nd and wage equality at 102nd reflecting significant impending challenges in achieving gender parity. In fact, Hassan et al. (2020) illustrated that almost 43% of male respondents do not want women to work outside of the home with 22% of women sharing the same sentiment (survey conducted on 10,240 respondents in all 64 districts of Bangladesh). It is more remarkable that 67% of males and 57% of females believed that men should be prioritised over women in case of employment (ibid). Hence, the question remains regarding the association between women's employment and their empowerment in a patriarchal society like Bangladesh, where women are expected to maintain their subservient domestic roles without challenging the prevailing HH power dynamics. Moreover, the Gender Social Norms Index of the UN shows that 99% of surveyed women in Bangladesh hold a biased attitude against their own gender, perpetuating the same social and gender norms that hold them back (Liller, 2023). As a result, the question remains how women's employment influences their intricate and multifaceted process of empowerment. In that sense, a deeper understanding is required to comprehend the influence of women's employment on their journey towards empowerment. Therefore, the primary aim of the current paper is to examine the relationship between women's full-time paid employment and their autonomy as a proxy measure of empowerment in the context of Bangladesh.

While different studies support the notion, others have opposed the same assertion that women's employment leads to their empowerment (i.e., Hossain, 2012; Salway et al., 2005; Tama et al., 2021; Zaman, 2001). This is for the reason that women's access to the initial resources (i.e., paid employment and education) doesn't automatically ensure their exercise of choices and attainment of agency leading to empowerment (Mahmud et al., 2012). It is argued that access to resources might not inherently translate into tangible bargaining power for women, particularly in a social context that is dictated by patriarchal and traditional social norms where women's choices and bargaining power are constrained by male dominated HH dynamics. For instance, it is argued that women's employment might not automatically induce their autonomy when men retain control over their income to reinstate their superlative status as the main provider and breadwinner of their family (Endeley, 2001; Kibria, 1995; Malhotra & Mather, 1997). In addition, women's employment is often initiated as a response to financial hardship and their struggle to survive hence it might not be sufficient to modify prevailing gender roles, alter the distribution of HH responsibilities, and/or secure equal property rights (Baruah, 2004; Pearson, 2004). Therefore, whether and to what extent

women's employment influences and augments the process of empowerment is still subject to further investigation.

To some extent, inconsistent findings in existing literature can be attributed to the differences in how empowerment is defined and measured in various empirical studies (Al Mamun & Hoque, 2022; Hillesland et al., 2022). Alkire et al. (2013) have argued that empowerment is a multifaceted concept interpreted differently by various scholars and it is conditional upon specific contexts or circumstances. Hence, this diverse interpretation could often result in a lack of consistent and standardised measures of empowerment across existing literature (Hillesland et al., 2022). Even when empirical studies focus on measuring the same aspect of empowerment, significant variation can be observed in how these studies design and implement their measurement techniques (Brody et al., 2017). For instance, some studies emphasise on economic empowerment through greater control over financial resources and decision-making ability within the HH domain (e.g., Banerjee et al., 2015; de Hoop et al., 2014), while others concentrate on collective and political action (e.g., Deininger & Liu, 2013; Desai & Joshi, 2014), mobility (e.g., de Hoop et al., 2014; Deininger & Liu, 2013), and/or employment (e.g., Annan et al., 2021; Rodriguez, 2022) as proxy measures of empowerment. However, using employment as a measure of empowerment can be problematic due to potential endogeneity, as women's ability to work might be an indication of their improved bargaining power to begin with instead of an ending outcome (Holland & Rammohan, 2019). Furthermore, most of the studies investigating women's empowerment have looked at HH-level participation in employment instead of individual-level employment (Van den Broeck & Kilic, 2019). A study by Seymour and Peterman (2018) has found that agreement on decision-making within a couple can influence how they perceive autonomy individually, especially in case of spousal disagreement regarding HH decisions, hence measuring the individual level of empowerment is advised. To address this potential concern, the current paper emphasises on women's individual-level participation in paid employment to understand their right to make an informed and deliberate decision (individual agency) to analyse and interpret their empowerment process.

There is an increasing volume of theoretical and empirical development attempting to explain the effects of women's wage-based employment in context of the developing countries with a particular focus on export-oriented industries (Lim, 1990). However, most of these studies focus on specific sectors such as agriculture, microfinance, or export oriented RMG industries to analyse women's empowerment, specifically in the South Asian context. However, it also poses certain challenges in addressing the broader aspects of women's empowerment process and limits any prospect of universal representation. Focusing exclusively on a specific sector might overlook the unique challenges and opportunities that women face in different contexts. For example, Malhotra and Schuler (2005) have argued that what might be seen as a manifestation of empowerment in one community or at one point in time, might not necessarily be perceived as empowering in another community or at a later point in time within the same community even. Hence, limiting the study of

women's empowerment to a particular sector can lead to an incomplete understanding of differential factors and dynamics that could potentially contribute to their empowerment. Furthermore, such studies could suffer from selection bias or reverse causality. For instance, women who are already more empowered or resourceful are more likely to enter certain employment sectors or actively seek employment rather than being employed as an indicator of empowerment itself. In response to such concerns, the present paper places its emphasis on paid employment across various sectors for a more nuanced and holistic understanding of women's empowerment. Besides, the current paper will further extend its investigation to capture the heterogeneity of women's employment experiences across various sub-groups of women (i.e., subsample analysis) segregated by their education, occupational sector, and place of residence.

Given the plausible avenues of endogeneity between women's employment and their autonomy, this study adopts an instrumental variable (IV) approach for empirical analysis. For the IV regression analysis, this paper has used the BDHS 2014 survey dataset and merged it to an external dataset i.e., BBS for the survey year 2011 to create an exogenous instrument (i.e., district level employment rate of women). The district-level women's employment rate is deemed a suitable instrument in this scenario as it is presumed to be unrelated to women's autonomy and only exerts influence through indirect pathways linked to their employment. Unlike the previous chapter where multiple rounds of BDHS datasets have been pooled together for regression analysis, the statistical inference of the present study is limited to only the survey year of BDHS dataset 2014 for instrument validity. Since, the instrument is exported from another national-level survey dataset (i.e., BBS 2011), which is released once every ten years, it had to be aligned with a corresponding year of the BDHS dataset, to ensure a suitable and sufficient timeframe (in this case, three years) to observe any influence of women's employment on their autonomy. In this paper, analysis of women's autonomy is restricted to only two different domains i.e., financial autonomy (over their individual income) and decision-making autonomy within the HH domain in relation to their employment as main outcome variables of interest. In addition, it must be noted that empowerment can be subjective, context-specific (Ghuman et al., 2006; Shihabuddin Mahmud, 2003; Mason, 1986) and multidimensional (Kabeer, 1999; Kishor & Subaiya, 2005; Malhotra & Schuler, 2005; Yount, 2005). To tackle such contextual complexities and potential sources of endogeneity via omitted variable bias, the current study uses a broad set of controls. Afterwards, as mentioned before, a subsample analysis has been performed to capture the heterogeneity in women's employment experiences in relation to their autonomy (both financial and HH decision-making). Finally, a reduced sample (including only women with their husbands as the HH head) has been used to re-run the original IV regression as a measure of robustness check. This altered regression specification restricted the possibility of women being autonomous through any pathway other than the intended one i.e., their employment. As a result, the current paper can explicitly assess how women's employment can define and

influence their control over financial resources and HH decision-making power as a representative measure of their overall empowerment.

The key findings of this paper highlight that the relationship between women's employment and their autonomy is not as straightforward and as linear as commonly perceived. It appears that being employed increases the likelihood for women to retain independent control over their HH decision-making. However, it shows no statistical significance with respect to women's employment and their financial autonomy, either solo or joint. The subsample analysis reveals that there is a negative effect of women's secondary education on women's solo financial autonomy at a 10% level of significance, but no statistically significant variation is evident across various education sub-groups in terms of women's joint financial autonomy. In terms of women's HH decision-making autonomy, IV estimates are positive across all education sub-groups but only significant for primary education proving that the main effect is driven by the sub-group of women with primary education. For various sub-groups of women employed in different occupational sectors, it is evident that being employed in the agricultural sector has a statistically significant negative effect on women's financial decision-making autonomy (both solo and joint). Hence, there is empirical evidence to conclude that working in the agricultural sector can reduce women's financial autonomy as corroborated in the existing literature (i.e., Anderson & Eswaran, 2009). However, no statistically significant variation is found in terms of women's HH decision-making autonomy across various employment sub-groups of women. Finally, the result shows that women living in urban areas (who are full-time employed) enjoy higher autonomy in terms of their HH decision-making. Overall, the results suggest that while women's employment is effective in influencing their HH decision-making authority, it does not necessarily warrant their control over individual income and financial resources (either solo or joint financial decision-making).

The remainder of this paper is structured as follows. The subsequent section reviews the existing literature on employment's role in empowering women. The following section outlines the study sample, measurement method, and econometric technique. Subsequently, the analytical section presents a comprehensive overview of summary statistics, empirical outcomes, and key findings. The final section encapsulates the primary outcomes of this paper and offers a concluding remark.

3.2 Literature Review

In economics and sociology, the bargaining theory (Marjorie B McElroy, 1990; Marjorie B McElroy & Mary Jean Horney, 1981) and the resource theory (Blood Jr & Wolfe, 1960) respectively examine intra-household relations regarding women's access to resources while analysing the variation in power and authority among HH members. The resource theory highlights the importance of women's access and control over economic and social resources (such as education, income, property, and social support) as determinants of their bargaining power and overall well-being within the HH

domain (Fox, 1973; McDonald, 1980). It suggests that when women have greater access to resources, they can negotiate and make informed choices more effectively. Conversely, the bargaining theory complements the resource theory by focusing on how women use the aforementioned resources as leverage for bargaining and negotiating to influence the HH decision-making process in varied social contexts (Kantor, 2003; Meurs & Ismaylov, 2019). HH resources available to each partner determine the extent to which HH members can bargain and how closely the chosen outcome will match their individual preferences (i.e., Kabeer, 1994, 1999; Sen, 1991). For instance, studies (i.e., Huber & Spitze, 1981; Oduro et al., 2012; Wiklander, 2010) show that the ownership of financial resources (such as wage income, earnings, savings, and assets) is positively correlated to women's bargaining power within the HH domain. Consequently, women's improved bargaining power within the HH domain grants them control over decisions affecting their own lives and reduces gender discrimination (Ashraf et al., 2010; M. Aslam & G. Kingdon, 2012; Doss, 2013; Malhotra & Schuler, 2005; Thomas et al., 2002a). In addition, women's increased bargaining power and involvement in HH decision-making translate into a redirection of resources according to their preferences which is found to be beneficial for overall HH well-being including child education, health, and nutrition (Mishra & Sam, 2016).

However, both theories have faced criticism on account of gross generalisation and not taking into consideration the contextual and cultural aspects which could potentially influence the degree to which resources stimulate the power dynamics within the HH domain (Kantor, 2003). For instance, Kaur and Sharma (1991) suggested that having access to resources does not essentially result in women's autonomy in a cultural setting, which doesn't allow them to make independent choices. These theories also acknowledged the fact that women might not be empowered even with access to resources unless they can effectively use these resources in negotiation. Regardless of underlying socio-economic and contextual factors, certain resources (i.e., education and employment) appear to consistently influence women's intra-household decision-making across various dimensions (i.e., reproductive, financial, social) to varied magnitudes (Heath, 2014; Malhotra & Mather, 1997; Meurs & Ismaylov, 2019; Oyediran & Odusola, 2004; Salway et al., 2005). Based on the premises of these theories, the current paper explores how women's paid employment is associated with HH decision-making power (both financial and HH decision-making) in Bangladesh by making allowance for the heterogeneity in women's experiences across various sub-groups. It is crucial to bear in mind that women's enhanced decision-making power itself is not a direct measure of wellbeing given that the desirability of power and authority might vary by the nature of an individual's decision as well the underlying contexts in which each decision is made. Women's decision-making power is used as a proxy in this paper for a broader and scarcely quantifiable notion that HH bargaining power determines the level of control/authority within the HH domain.

In existing literature, various factors are identified to exert an impact on women's HH bargaining power and their income via employment consistently emerged as one of the primary

predictors of their autonomy (Brockerhoff & De Rose, 1994; Burgoyne & Morison, 1997; Lee & Beatty, 2002; Malone et al., 2010; Yilmazer & Lyons, 2010). For instance, Acharya et al. (2010) have concluded that Nepalese women's autonomy in HH decision-making is positively correlated with their paid employment. In addition, a study conducted by Mumtaz and Salway (2007) has revealed that women's employment facilitated their engagement in HH decision-making and granted them a higher level of empowerment within a social context like Pakistan. This is a country marked by rigid social and religious norms which traditionally assign women with a subordinate role in marriage. Also, women's active involvement in the formal labour market promotes gender equality, reshapes traditional HH roles, and challenges rigid gender norms to bring women out of domestic confinement and social seclusion (Warren, 2010). Rahman and Rao (2004) have demonstrated that women's higher income from paid employment improves their freedom of movement and authority. Thus, women's integration into the labour market with paid employment offers an opportunity to reshape and redefine their societal power and gendered role by exposing them to new experiences and broader realms of social interaction beyond what they might have previously experienced (Pampel, 2011). Besides, women's involvement in credit-induced income generation activities (IGAs) including microcredit received considerable attention in the existing literature. Different scholars (i.e., Hashemi et al., 1996; Kabeer, 2001; Pit & Khandker, 1996) have claimed that it empowers rural women by strengthening their self-esteem, establishing a sense of communal belongingness, and giving them exposure to public spheres for the very first time. Al-Mamun and Mazumder (2015) have demonstrated that women's involvement in microcredit-based employment programmes in Malaysia significantly contributed to their enhanced control over HH decision-making consequently leading to empowerment. Even in diverse cultural and social contexts across various countries, such as India (i.e., Rodriguez, 2022; Sedai et al., 2021), Bangladesh i.e., Alam (2012), Pakistan (i.e., Weber & Ahmad, 2014), Vietnam (i.e., Huis et al., 2019), Kenya (i.e., Anderson & Baland, 2002), Ghana (i.e., Ganle et al., 2015), Sierra Leone (i.e., Garcia et al., 2020), Zambia (i.e., Mukendi & Manda, 2022) and Ethiopia (i.e., Hillesland et al., 2022) microcredit-based employment have been effective in empowering women. Alternatively, some scholars have held a contrasting view and argued that while credit-dependent employment opportunities for women improve their bargaining power to a certain extent within the prevailing HH power structure, it fails to bring any significant and/or substantial change in the HH power dynamics leaving women with limited control over their financial resources (i.e., Garikipati, 2008; Goetz & Gupta, 1996; Guérin et al., 2015; Johnson, 2005; Mayoux, 2001; Rahman, 1999). This is because women's credit-induced income often reinforces the existing power structure where men use the loan given to women for productive IGAs while leaving women responsible for repayment. Additionally, men often use patriarchal norms as leverage to sustain women's subordination and restricted mobility (Garikipati et al., 2017; Karim, 2011; Rankin, 2002; Rao, 2008). Consequently, women are often the ones who bear the social and financial burden of loan repayment (Brett, 2006; Bylander, 2014; Guérin et al., 2013). Nonetheless, it is evident that

substantial transformations have taken place in advancing women's empowerment through credit-induced employment in the context of Bangladesh thus far (Al Mamun & Hoque, 2022; Kabeer, 2017).

Other types of paid work outside women's own HH appear to have significant implications for their empowerment (Garikipati et al., 2017). It is suggested that women's access to paid employment, outside their own houses, enhances their decision-making and control over resources within the HH domain (Acharya & Bennett, 1982; Anderson & Eswaran, 2009; Finlay, 1989; Riaz & Pervaiz, 2018; Safa, 1995). For instance, RMG industries in Bangladesh have played a substantial and catalytic role in advancing women's economic empowerment (Ahmed & Sen, 2018). Evidence also suggests that employment in the formal sector can improve women's bargaining position within the HH domain (Kabeer et al., 2011; Khosla, 2009; Schuler et al., 2013; Zohir, 2001), increase their well-being and overall HH welfare including child health and nutrition (Blumberg & Coleman, 1989; Rahman & Rao, 2004), support their family via increased consumption and investment in child education (R. Heath & M. Mobarak, 2012; Hossain, 2012; Rahman et al., 2012), cultivate self-reliance, increase social visibility, enhance freedom of movement, expand their choices and reduce HH poverty (Kabeer & Mahmud, 2004; Zohir, 2007). In fact, impacts of women's employment on their empowerment have been widely demonstrated in different social settings. For instance, several scholars (i.e., Feenstra & Hanson, 1997; Krugman, 1997; Sargent & Matthews, 1997) have demonstrated that women's employment in Mexico provided them with increased financial independence. Additionally, Maligalig et al. (2019) have shown that off-farm employment (i.e., employment in rice farms) in the Philippines allowed women to contribute to HH income, learn social skills, acquire knowledge and information to help them participate in HH decision-making and enhance their level of empowerment. Moreover, Etuah et al. (2020) have found that women's participation in off-farm economic activities often increases their income, reduces their reliance on men for necessities, enhances their participation in HH spending, and ultimately strengthens their decision-making power in Ghana.

However, home-based employment can be less empowering for women compared to off-farm[5] employment outside their home (Kantor, 2003) as interestingly "it is not employment per se nonetheless women's employment outside their husbands' farmstead that influences their level of autonomy" (Anderson & Eswaran, 2009, p. 179). Different studies (i.e., Goetz & Gupta, 1996; Kelkar et al., 2004) have corroborated with abovementioned statement that women who are involved in off-farm employment handle their own income as a result of which they can independently decide how to spend their income. A study in Andhra Pradesh, India by Garikipati (2009) has revealed that women's employment in agriculture and production-based IGAs alongside access to financial resources (including farmland, livestock, sewing machines, and small retail shops) enhanced their autonomy in HH decision-making. In fact, Anderson and Eswaran (2009) have examined the impacts

[5] Off-farm employment is defined as all economic activities that take place outside the agricultural household, hence excluding on-farm self-employment activities but including off-farm salaried and casual wage employment, and off-farm self-employment (Van den Broeck, G. and Kilic, T., 2019).

of women's employment outside their husband's farmsteads in rural Bangladesh and found that "earned income" enhances women's autonomy more than "unearned income" generated from working in their HH-based farming activities. Hence, it is evident that women's employment in husband and/or family-owned farmsteads is ineffective in augmenting their autonomy. This is because women's engagement in productive work is not considered separately from their traditional HH chores even if such work is generating income. As a result, these women lack control over family finances despite their direct contribution to the pooled HH income through physical labour. Moreover, in various traditional social settings, women frequently surrender control of their earnings to their husbands, resulting in a lack of independent authority over their income and often leading to exploitation by their family members (Elson & Pearson, 1981; Greenhalgh, 1985). Consequently, their HH bargaining power cannot always be explained in financial terms (Folbre, 1997) and it is rather a combination of cooperation and conflict (Sen, 1989). Hence, it can be argued that women's HH position as well as their authority are controlled by various contextual factors that are not limited to individual circumstances but extends to HH and social domains.

The presence and significance of gender stratification and hierarchical social relations altering the HH dynamics in Asian countries is extensively discussed in existing literature (i.e., Alkire et al., 2013; Jejeebhoy & Sathar, 2001; O'Hara & Clement, 2018). In addition, regional variation and country-specific societal norms conspicuously determine people's perception of women's autonomy and their role in marriage, HH, community, and society at large. For instance, studies (i.e., Wolf, 1985; Wu, 2005) have revealed that women's increased employment opportunities do not automatically bring changes to the familial power relations in China, a country with rigid societal norms and hierarchical gendered ideologies. Furthermore, Basu (1992) has demonstrated that women from the Southern regions of India have a greater voice in HH decision-making and exposure to the public domain compared to the Northern region of India where prevalent social norms are more gender stratified and traditional. Likewise, Sharma (2012) has implied that having access to employment does not essentially result in women's independence in a cultural setting which doesn't allow them to make independent choices. Other studies (i.e., Kazembe, 2020; Peterman et al., 2021) also illustrate how the impacts of women's employment on their decision-making autonomy differed across countries (i.e., Ecuador, Uganda, Yemen, Namibia) indicating that underlying contextual and geographical factors (including social norms) play a significant role in women's overall empowerment process. From such a perspective, it is reasonable to assume that women's employment might not be sufficient to significantly alter the HH power dynamics in a socio-cultural context where women are expected to be subservient to husbands and other male and older female family members.

Although women's paid employment brings numerous positive outcomes, it also comes with probable negative consequences such as exploitation of cheap labour, dual burden of work and HH responsibilities, lack of work-life balance, and increased risk of exposure to domestic violence (Paul-

Majumder & Begum, 2000). Different studies have demonstrated that women, both in urban and rural areas, experience the dual burden of work and HH responsibilities influenced by existing gender roles, social norms, and religious traditions in Bangladesh (i.e., Barkat-e-Khuda, 1985; Cain et al., 1979; Mahmud, 1997; Rahman, 1994). For instance, women's employment outside their HHs amplifies their overall workload as they are still expected to perform as the primary caretaker of their family members alongside other HH responsibilities. Such persistence of hierarchical domestic roles remains challenging to overturn, as women are still obliged to manage their time between work and HH responsibilities in a way that prioritises their gendered role as the primary HH caretaker (Kabeer, 1999; White, 2010). A recent study by Bhalotra et al. (2021) demonstrates that women's employment can trigger a potential conflict between women's altering economic position and prevailing social norms that could result in an increased likelihood of domestic violence, particularly in developing nations where patriarchal norms are deeply entrenched. Similarly, women's employment has been found to be associated with a greater risk of being exposed to spousal violence in Africa (Cools & Kotsadam, 2017), India (Eswaran & Malhotra, 2011), and Spain (Alonso-Borrego & Carrasco, 2017). These findings corroborate the 'male backlash theory' which suggests that employment yielding greater HH bargaining power and financial independence in favour of women might also be considered as a perceived threat to men in a patriarchal society as a result of which men often retaliate with violence to reiterate male dominance (Bhalotra et al., 2021; Gedikli et al., 2023). While women's financial contribution has been valued at the HH level, they have also responded with ambivalent social reactions where working women are often exposed to abuse and socially stigmatised when traditional gender norms are challenged and/or threatened (Amin, 1998). Therefore, the question regarding the extent to which women's employment influences their empowerment remains unresolved.

Furthermore, the causal association between women's employment and their autonomy is riddled with issues of endogeneity bias and reverse causality. According to Basu (2006), women's voice and active involvement in HH decision-making is determined by their independent income, but contrarily their participation in paid employment can be an outcome of their bargaining power to begin with. Therefore, it can be assumed that women who have greater control over HH decision-making might also have a greater probability of being employed. Hence, it is necessary to address plausible avenues of reverse causality and endogeneity bias. Endogeneity could stem from multiple sources such as omitted variable bias, measurement error, and/or reverse causality such as empowered women could be more likely to join the formal employment sectors (Mishra & Sam, 2016). It could also be due to the fact that progressive HHs might have greater resources (such as higher levels of HH wealth and land ownership) accessible to women leading to their employment as well as enhanced empowerment (Menon et al., 2014). Several studies dealt with the issues of endogeneity bias by utilising the instrument variable (IV) technique to analyse women's empowerment in varied contexts (Allendorf, 2007; Quisumbing & Maluccio, 2003; Wiig, 2013). For

instance, previous studies (Autor et al., 2013; Gonçalves & Martins, 2021; Noseleit, 2014) have used the percentage of employed and/or self-employed workforce in a specific geographic location to instrument employment decisions. Alternatively, different studies (i.e., Chakravorty et al., 2014; Fang et al., 2012; Khandker et al., 2014; Rao, 2013; Sedai et al., 2022) have adopted the two-stage least squares (2SLS) method using a geographic instrument for IV analysis in varied contexts. Besides, Bhattacharya (2015) has reflected upon the significance of appropriate control variables while using the IV technique to precisely assess the causal association between women's employment and domestic violence in India. Furthermore, Heggdal (2016) has addressed the issues of potential endogeneity by using 'same-sex siblings' as an instrumental variable, while De Jong et al. (2017) in Africa have used 'number of twin children' as an instrument to assess women's ability to work in the formal employment sector. Given the endogenous nature of the association between women's paid employment and autonomy, any statistical model that fails to account for endogeneity would be prone to both bias and inconsistent estimates. Building upon prior research, this study employs the IV technique as its primary research method. A detailed discussion of the chosen research methodology and justification of the chosen IV is presented in the subsequent section.

3.3 Research Methodology

3.3.1 Empirical Model

For a comparative analysis with the estimates of IV regression, a simple ordinary least square (OLS) regression is applied using a cross-sectional dataset as the baseline estimation where the primary outcome variable is women's autonomy in the HH domain (both financial decision-making and HH decision-making.

$$y_{it} = \beta_0 + x'_{it}\theta + z'_{it}\alpha + \in_{it}$$

Where, y_{it} is the observed outcome variable representing women's decision-making power within the household (HH) domain and x'_{it} represents women's paid employment. Similarly, θ is the coefficient associated with women's paid employment whereas z'_{it} is a vector of observable characteristics (women's level of education, age, religion, marital duration, number of children, age difference with husband, husband's education, employment characteristics) for the time period t'. In addition, regional (all eight divisions of Bangladesh) and time (survey year) fixed effects are included in the regression analysis as control variables to account for the regional and spatial variation. Then again, α is a vector of coefficients associated with the observable characteristics. Finally, $\in_{it}$ is the error term capturing unobserved factors influencing the dependent variable for the time period t'.

3.3.2 Justification of Instrumental Variable (IV) Approach

In the current paper, an empirical challenge is to recognise the causal effects of women's employment on their autonomy (via pathways of HH decision-making both financial and non-financial) and to avoid potential sources of endogeneity which could be attributed to various factors. First, there could be omitted variables affecting both women's employment and their autonomy. Second, there could

be plausible sources of reverse causality where women joining the labour force are more empowered to begin with even before their employment. To correct these concerning issues, several adjustments have been made in the regression model such as including a wide range of control variables and using an exogenous instrument. As discussed before, demonstrating an association between women's employment and their autonomy in the HH decision-making domain necessitates an empirical model, which addresses the econometric issue of endogeneity bias (Epo & Baye, 2011). One plausible solution is using the IV method, which aerates an endogenous regressor by using reliable instruments and one of the most commonly employed IV procedures is 2SLS estimation (Burns et al., 2017). The assumption is merely based upon the premise that the designated instrument will be correlated to the endogenous variable but not to the main outcome variable, which should be independent of any effect caused by the instrument. Any reliable application of an instrument in the IV approach must comply with the following two conditions along with a sample size that is sufficient to allow for a reasonable estimation. First, the chosen instrument must cause a variation in the 'treatment' variable and second, it must not exert any immediate effect on the 'outcome' variable directly except for the hypothesised indirect pathway via the 'treatment' variable. Therefore, any effect of the chosen 'instrument' on the dependent variable is only mediated through the treatment assignment, and this condition is known as the exclusion restriction.

The 2SLS regression model replaces the endogenous variable (i.e., women's employment here in this model) with predicted values of the same endogenous variable, which is regressed upon the instrument variable (i.e., district-level employment). The first stage of this two-stage model uses a reduced-form equation to estimate the endogenous variable with an exogenous instrumental variable. Therefore, the instrument could only affect women's autonomy indirectly via their predicted employment. Given the potential endogeneity between women's paid employment and autonomy, the current study attempts a two-tiered approach to select the appropriate instrument. First, this study considers the likelihood of women's paid employment to be positively associated with the 'error term' resulting in an upward bias of single equation (OLS) estimates. This is reflective of the possibility that more autonomous women, to begin with, are more likely to join paid employment. To tackle this issue, the study controls for several observed variables, which are most likely to affect both women's employment and their level of autonomy within the HH domain. Second, the current study endogenise women's paid employment with the estimation of a two-equation model using an instrumental variable (i.e., district-level employment rate).

For this study, the district-level employment rate for women serves as a natural candidate, as it is expected to be strongly correlated with women's employment status but should not influence their autonomy. The instrument used in this model i.e., the district-level employment rate of women in Bangladesh, is exogenously sourced from a national level survey dataset (i.e., BBS 2011). The instrument used in this analysis is derived from the lagged value of the district level employment rate for women. It's important to highlight that due to data restriction, the most recent matching BDHS

2014 survey dataset has been obtained from BBS 2011 survey dataset to construct this instrumental variable. In the absence of a panel dataset, this study uses a cross-sectional survey dataset (i.e., BDHS) and opts for only one survey year (i.e., 2014) to allow sufficient time for any significant impact to be exerted through the chosen instrument. It is projected that district-level women's employment is a valid instrument based on the hypothesis that it does not exert any effect on individual women's empowerment other than the channel of women's employment. It is presumed that the chosen instrument i.e., 'district-level women's employment rate' depicts a general situation that could be favourable for women's employment, but it does not exert any direct effect on the 'outcome' variable i.e., women's decision-making autonomy other than hypothesised indirect route via 'treatment' variable. Therefore, it can be deduced that the chosen instrumental variable meets both the abovementioned criteria and hence can be considered a reasonably reliable instrument.

3.3.3 2SLS IV Regression Model

As mentioned in the previous discussion, the current study attempts to investigate the causal effect of women's employment (full-time employment) on their HH decision-making (both financial and non-financial i.e., HH-related decisions) using a 2SLS instrumental variable (IV) strategy in addition to OLS regression analysis to fix the potential biasness of endogeneity and reverse causality. The first stage of the 2SLS model estimates the endogenous variable (women's paid employment) using the instrument (district-level employment rate) which is outsourced from an external dataset (BBS, 2011) matched to BDHS 2014 survey dataset by using a GPS coordinated shape file (available via DHS) by co-ordinating all 64 districts of Bangladesh between both datasets:

$$x_{it} = \gamma_0 + w'_{it}\sigma + z'_{it}\delta + u_{it} \quad \text{..... (i)}$$

Where, x_{it} is the endogenous variable (women's paid employment) and w'_{it} is the instrument (district-level employment rate for women). Then, σ is the coefficient associated with the instrument and z'_{it} is a vector of control variables (observable characteristics as in the OLS model). Finally, δ is the vector of coefficients associated with control variables and u_{it} is the error term for the first stage.

$$y_{it} = \beta_0 + \hat{x}_{it}\theta + z'_{it}\alpha + \in_{it} \quad \text{..... (ii)}$$

In the second stage of 2SLS IV model, y_{it} is the outcome variable of interest (women's decision-making autonomy within the HH domain, both financial and HH decision-making autonomy). The primary difference between both outcome variables is that the financial decision-making variable is a singular dummy variable and the HH decision-making variable is a composite index of multiple dummy variables. Then, $\hat{x}_{it}$ is the predicted value of women's paid employment from the first stage. Furthermore, z'_{it} is a vector of observable characteristics such as women's age, religion, educational background, place of residence, geographical location in addition to their husband's characteristics (age gap, education, occupation), HH characteristics (wealth index and sex of HH head), regional and time fixed effects. Finally, α is the same vector of coefficients associated with the observable characteristics as in the first stage and $\in_{it}$ is the error term for the second stage.

3.3.4 Independent Variable

In this empirical analysis, the main predictor variable is the employment status of married women working full-time in different sectors across rural and urban areas of Bangladesh. The main explanatory variable is women's full-time employment represented by a dummy variable (whether a respondent has been employed full-time in the last 12 months) from the BDHS 2014 survey dataset.

3.3.5 Control Variables

The empirical model controls for several covariates, which have been hypothesised to exert an impact on women's empowerment proxied as autonomy in this regression model as the main outcome variable. A vector of women's characteristics such as age, level of education, and relationship to HH head is controlled for following Allendorf (2007) and Kabeer (1999). In the context of South Asian countries, women's age is a proxy of their authority within the HH domain which increases the likelihood of being empowered (Basu & Koolwal, 2005; Kabeer, 1999; Kishor & Gupta, 2004; Mahmud et al., 2012). Likewise, if the husband of a woman is HH head then she has an upper hand in decision-making within the HH domain with greater authority. Women's education is perceived to be empowering them both financially and socially by increasing their sense of self-worth and perceived financial independence (Kabeer, 1999; Kishor & Gupta, 2004; Samarakoon & Parinduri, 2015; Trommlerová et al., 2015). In addition, control variables such as the age gap between a married couple and the characteristics of a husband are included following previous studies (Basu & Koolwal, 2005; Kishor & Subaiya, 2008).

Additionally, a vector of HH characteristics (such as the number of children, HH size, religion, and wealth index) has been included in the model. For instance, religion plays an important role in determining women's societal position in South Asia including their legal rights to asset ownership and gender role in marriage (Basu & Koolwal, 2005; Trommlerová et al., 2015). Then again, familial income level (i.e., HH wealth index) has been controlled for, since women's participation in HH decision-making is most likely to be associated with their HH level of wealth. It is also hypothesised that wealthier HHs have greater access to resources and information that could affect women's empowerment (Kabeer, 1999; Kishor & Subaiya, 2008). Finally, women's place of residence (urban or rural areas) has been used as a control variable, as it is assumed that women living in rural areas face stricter social and cultural restrictions compared to women in urban areas relegating rural women to a further subordinate HH bargaining position (Kishor & Gupta, 2004; Trommlerová et al., 2015). In the end, fixed effects (including regional and survey year) have been adjusted in the empirical model as controls to capture any regional and spatial variation.

3.3.6 Dependent Variables

Following previous studies (i.e., Browning & Chiappori, 1998; Marjorie B McElroy & Mary Jean Horney, 1981), the current paper conceptualises HH decision-making as a collective model of intra-

HH bargaining i.e., each HH is considered as a combination of discrete individuals with their preferences instead of a singular and monolithic unit of decision-making. The rationale for choosing the collective bargaining model has been derived from preceding empirical evidence (Haddad et al., 1997; Quisumbing & Maluccio, 2003), which indicated the plausibility of inaccurate approximation of intra-household behaviours within the unitary model (Becker, 1965). Consequently, the preferred collective intra-household bargaining framework makes an allowance for differential preferences among HH members and captures the heterogeneity in bargaining power among HH members and their ability to allocate resources to maximise HH wellbeing (Doss, 2013).

This paper uses two main outcome indicators of women's autonomy within the HH domain: i) Financial autonomy representing their control over earnings (both solo and joint) and ii) their HH decision-making autonomy representing their control over various HH-related decisions. Thus, it is believed that both financial and non-financial aspects of women's bargaining power within the HH domain are encapsulated. In terms of women's financial autonomy, there is a substantial debate in existing literature referring to the ambiguity in interpreting women's joint decision-making (Bocci & Mishra, 2021). In addition, several scholars have argued that joint control over finances (i.e., microcredit and other loans) is a disguise for covert male dominance, whereas women are liable for repayment without any control over resources, thus it cannot be indicative of women's improved HH bargaining power (Goetz & Gupta, 1996; Montgomery & Casterline, 1996). Contrarily, it has been argued that joint decision-making for women is not necessarily a poor outcome (Kabeer, 2001) and overemphasising women's autonomy could be culturally and contextually inappropriate in South Asian contexts (Jeffery & Basu, 1996). Therefore, this study reports both solo and joint financial autonomy of women separately where joint financial autonomy represents both spouses' involvement in financial decisions.

In this study, the BDHS dataset (2014) is used to construct an index to represent HH decision-making autonomy to examine women's bargaining power within the HH domain following previous studies (i.e., Allendorf, 2007; Bocci & Mishra, 2021; Mishra & Sam, 2016). It adopts a stricter definition of empowerment by creating a binary indicator of women's autonomy to identify women's solo control over certain HH-related decisions. Accordingly, a value of one (1) has been assigned if a woman has the final say in each HH-related decision and zero (0) otherwise. In this regard, a total of five (5) HH-related decisions are carefully chosen to construct the composite index for the HH decision-making autonomy index. The index includes women's ability to decide on their own and child healthcare, large HH purchases, visiting family members, and family planning (i.e., use of contraceptives), which aligns with the literature (i.e., Mishra & Sam, 2016). It should be noted that some decisions, traditionally bestowed upon women, are excluded from the model such as what to cook and what to purchase for daily necessities (Allendorf, 2007; Basu & Koolwal, 2005; Kishor & Neitzel, 1997) given these HH related decisions do not necessarily reflect women's increased level of autonomy otherwise known as empowerment (Kabeer, 1999).

3.3.7 Rationale for Using HH Decision-Making Autonomy as Indicator of Empowerment

Several authors reflect on women's autonomy as a static indicator of women's empowerment compared to agency (Allendorf, 2007; Mishra & Tripathi, 2011). Although there are several definitions of autonomy, most of these refer to the capability of decision-making in response to greater access to resources (Charrad, 2010; Howard-Hassmann, 2011). A vast majority of the neo-classical literature in South Asian contexts explored varied constructs of women's autonomy mostly focusing on women's ability to take individual action for HH decision-making (Sathar & Kazi, 1997; Schuler et al., 1997). According to Boateng et al. (2014), women's capability to make choices is closely attached to their everyday lives including control over pooled HH income and decision-making reflecting their level of empowerment. However, over-reliance on the notion of women's autonomy has been criticised for replicating Western concepts and ideologies without considering the cultural appropriateness and contextual relevance (Jeffery & Basu, 1996). Kabeer (1997, p. 266) referred to this perplexing replication of individual autonomy in a context where "women's long-term interests are better served by preserving HH solidarity and co-operation instead of fulfilling one's individual needs as the social system might penalise an attempt of autonomous or individualistic behaviour". It is also suggested that integrating both spouses' accounts of decision-making within the HH domain instead of focusing on women's solo decision-making might fundamentally alter the present understanding of autonomy in terms of both its determinants and consequences.

There is an ongoing debate regarding the measurements of women's decision-making within the HH domain and several scholars have suggested that joint decision-making is insufficient in indicating women's autonomous control thus only solo control of women should be considered while measuring their autonomy (Goetz & Gupta, 1996). Studies have also suggested that "joint" control over individual finances might not represent the actual improvement in women's HH bargaining position (Goetz & Gupta, 1996; Montgomery & Casterline, 1996). Contrarily, joint decision-making is not necessarily a poor outcome and women's greater involvement in collective decision-making (with their husbands) has the potential to yield positive outcomes compared to independent decision-making in specific social contexts (Kabeer, 2001). It is being argued that using 'autonomy' to indicate women's solo control might discount the inter-dependence in HH decision-making and women's preference to make combined choices (Kabeer, 2001; White, 2010). For instance, in specific cultures, women perceive empowerment as participating in household decision-making with their husbands, often aiming not to challenge existing gender dynamics or male dominance. Additionally, Furuta and Salway (2006) have argued that concentrating on women's independent decision-making is inappropriate in South Asian contexts and greater attention should be assigned to identifying HH decision-making as a process that involves multiple participants.

Given the aforementioned reasoning, this paper uses a cross-sectional survey dataset in compliance with previous studies that defined women's autonomy as a construct identical to 'agency', excluding the element of change over time (Jejeebhoy & Sathar, 2001; Malhotra & Schuler,

2005). Additionally, in line with the contemporary collective HH bargaining model where individual bargaining power largely depends on their ability to be financially independent (Adato et al., 2000; Haddad et al., 1997); this paper attempts to analyse the effects of women's paid employment on their autonomy within the HH domain. Furthermore, the current paper assumes that women's independent involvement in HH decision-making represents their bargaining power (Allendorf, 2007; Doss, 2013; Mabsout & Van Staveren, 2010). However, as previously discussed, the study does not include women's participation in any cooking decisions within their HHs while constructing the composite HH decision-making index. Finally, the measure of women's financial autonomy includes both solo and joint decision-making instead of only focusing on their full control over finances (defined as solo) acknowledging the significance of joint decision-making in the backdrop of socio-cultural contexts and gender norms in Bangladesh.

3.3.8 Data Collection

This paper uses cross-sectional survey data (i.e., BDHS 2014), a publicly available dataset, which contains a broad range of demographic, socio-economic, health-related, and women's empowerment related variables for a nationally representative sample size. Since BDHS collects both HH and individual-level data, the individual recode (IR) questionnaire is used which includes wide-ranging information about women respondents including their involvement in the HH decision-making process. This paper uses only one round of the BDHS dataset (i.e., BHDS 2014) given that the adopted instrument for IV estimation is exogenously sourced from an external dataset (i.e., BBS 2011). For statistical analysis, the BDHS 2014 dataset is merged with the BBS 2011 dataset to generate the instrument (i.e., district level employment rate of women) to run 2SLS IV regression. An attempt has been initially made to use two different instruments as a measure of robustness for which the study has generated an internal instrument sourced from the previous round of survey data (i.e., BDHS 2011). However, later, this internal IV was eliminated because women's employment rate at the district level was measured differently in these two datasets (i.e., BDHS and BBS respectively). Since the BBS survey dataset records detailed information on women's labour force participation in Bangladesh including those who are currently employed as well as those who are actively looking for employment, the external instrument derived from this dataset is prioritised over the internal instrument initially generated from the BDHS 2011 dataset.

3.4 Data Analysis and Findings

3.4.1 Descriptive Statistics

For quantitative analysis, this paper has used the BDHS dataset for the survey year 2014 with a total observation of 17,782. The dataset covers 600 primary sample units (PSU) clustered at the "thana" level which is the smallest administrative tier of the government of Bangladesh. The primary unit of analysis is only 'ever-married women' between the ages of 15 to 49 years. Table 3.1 presents

summary statistics of the key variables of interest where approximately 65% of women in the survey sample live in the rural areas of Bangladesh. The survey sample has an average age of 31 years for women who are full-time employed with most of them following the religion of Islam (90% of women are Muslims). The average age of women at first childbirth is 17.92 years with approximately two children per woman. The age gap between spouses is around 9 years on average which is significantly high.

Table 3.1: Summary Statistics of the Sample

Variables	Mean	S.D.	Min	Max
Rural	0.653	0.476	0	1
Age	31.01	9.216	15	49
Religion (Muslim=1)	0.904	0.295	0	1
Women's Education (secondary)	5.308	4.106	0	17
Women Employed (last 12 months)	0.315	0.465	0	1
Age at first child born(years)	17.92	3.340	10	46
Number of Children	2.225	1.527	0	12
Husband's Education (years)	5.494	4.792	0	18
Husband's Age	39.60	11.33	15	95
Relative Spouse Age Gap	8.962	5.692	-20	57

Table 3.2 presents the frequency distribution of women's decision-making (DM) power across five different aspects within the HH domain. While constructing the HH decision-making index, these five aspects of HH decision-making are converted into a composite index using principal component analysis (PCA) in line with existing literature (Bocci & Mishra, 2021). As illustrated, the highest proportion of women's authority is in child healthcare-related decision-making. This is comprehensible as women are the primary caregivers of family and such nurturing duties are traditionally bestowed upon them irrespective of education and employment status. Whereas decisions associated with financial transactions such as large HH purchases are most likely to be associated with their husbands as demonstrated by the lowest proportion of frequency distribution followed by decisions regarding family planning which usually involve both men and women. It should be mentioned that the frequency table is calculated based on women's perceived power (self-reported) in HH decision-making and the dummy variables can take only two values i.e., zero (0) for no solo control over the decision-making domains or one (1) for complete authority over each specific HH decision.

Table 3.2: Frequency Distribution of Women's Decision-Making (DM) Power (N=16,749)

HH domains of DM	Women's solo DM power (Yes=1)	Women's no solo DM power (No=0)
Own healthcare (HC)	2521	14,228
Child healthcare (HC)	2818	13,779
Large HH purchases	1499	15,250
Visiting family and relatives	1784	14,959
family planning (use of contraception)	1621	8,776

Table 3.3 represents the sampling adequacy and reliability scores of the index created for the analysis. The result shows an overall KMO value of 0.769, which is higher than the cut-off point of 0.60 (Tabachnick & Fidell, 2018, p. 661). Moreover, KMO values for each HH decision-making variable range between a minimum of 0.747 to a maximum of 0.842, representing the sampling adequacy. Additionally, the result shows a Cronbach's alpha (α) value of 0.755, which is more than the recommended value (Cronbach's alpha α ≥ .70), representing an internally consistent and reliable index (Hair et al., 2013, p. 123). Therefore, it can be concluded that the index of HH decision-making autonomy is consistent and reliable. It's important to note that certain aspects of women's empowerment such as physical autonomy (an indicator of women's mobility and freedom of movement) and perceptual autonomy (perception of domestic violence) are deliberately excluded from this paper, unlike the previous chapter. Since it is only women's perception towards domestic violence, not actual prevalence which is covered by BDHS alongside limited information on women's mobility (only one question is available about women's visits to health centres); this paper has decided to exclusively concentrate on women's bargaining power and authority in the form of HH decision-making. In the subsequent paper, women's exposure to IPV and its association with their mobility will be extensively analysed.

Table 3.3: Sampling Adequacy and Reliability for HH Decision-Making (DM) Index

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	
Solo DM own healthcare	0.787
Solo DM visiting family	0.747
Solo DM large HH purchases	0.749
Solo DM child healthcare	0.792
Solo DM family planning (use of contraception)	0.842
Overall KMO	0.769
Cronbach's alpha (α) = 0.755	

3.4.2 Empirical Findings and Discussion

The following segment presents key empirical findings and Table 3.4 summarises both OLS and IV estimates for two outcome variables i.e., financial autonomy and HH decision-making autonomy. Before moving into statistical inferences, it is important to test the overall strength of the selected instrument for which the Cragg and Donald (1993) F statistic has been used following the existing literature (i.e., Hahn & Hausman, 2003; Stock & Yogo, 2002). To detect the weakness of an instrument, Cragg and Donald (1993) have proposed a test of under-identification, which Hausman et al. (2005) later tabulated by using critical values (i.e., minimum eigenvalue for Cragg–Donald statistic). In a single endogenous regressor setting, Staiger and Stock (1997) have suggested that any instrument will be identified as a weak instrument if the F-statistic is less than ten (rule of thumb, F≥10). The Cragg-Donald Wald F statistic is 11.766 for financial autonomy, while it is 33.587 for HH decision-making. Given that the magnitude of the F-test statistic is larger than 10 (in each case), the strength of the chosen instrument is validated to examine the hypothesised association between women's employment and their autonomy. Table 3.4 illustrates the estimated effects of employment (both OLS

and second stage IV) for women's financial (both solo and joint) autonomy and HH decision-making autonomy. The probability of F statistics (for both autonomy variables) is 0.0000 indicating the significance of the regression model. Therefore, it can be assumed that the chosen instrument is significant at a 1% level of significance and is positively correlated to women's employment (see Appendix A for first stage IV estimation).

Table 3.4: Effects of Women's Employment on Financial and HH Decision-Making Autonomy

Variables	Column 1 (OLS) Solo Financial Autonomy	Column 2 (IV) Solo Financial Autonomy	Column 3 (OLS) Joint Financial Autonomy	Column 4 (IV) Joint Financial Autonomy	Column 5 (OLS) HH DM Autonomy	Column 6 (IV) HH DM Autonomy
Employed	-0.045*	-0.813	0.079***	-0.147	0.179***	1.347**
	(0.0253)	(0.561)	(0.0271)	(0.565)	(0.0320)	(0.612)
Primary	0.00841	0.00206	0.0283	0.0264	0.0163	0.0273
	(0.0182)	(0.0199)	(0.0195)	(0.0200)	(0.0442)	(0.0517)
Secondary	0.0278	0.0350	0.0280	0.0301	0.0353	0.0918
	(0.0215)	(0.0237)	(0.0230)	(0.0237)	(0.0501)	(0.0649)
Higher Edu.	0.0506	0.0697*	0.0935**	0.0992**	0.0253	-0.0433
	(0.0354)	(0.0421)	(0.0378)	(0.0409)	(0.0770)	(0.0905)
Hus. HH Head	-0.123***	-0.102***	0.143***	0.149***	-0.103**	-0.193***
	(0.0198)	(0.0276)	(0.0212)	(0.0266)	(0.0417)	(0.0622)
Own HH head	0.256***	0.278***	-0.149***	-0.142***	1.777***	1.604***
	(0.0313)	(0.0387)	(0.0334)	(0.0351)	(0.0922)	(0.183)
Poorest HH	-0.0423**	-0.0628**	0.00907	0.00302	-0.0247	-0.0314
	(0.0181)	(0.0245)	(0.0193)	(0.0246)	(0.0415)	(0.0429)
Richest HH	0.0485**	0.0458**	-0.0503**	-0.0510**	-0.0462	0.0716
	(0.0193)	(0.0212)	(0.0207)	(0.0209)	(0.0450)	(0.0764)
Rural	-0.0495***	-0.0502***	0.0205	0.0204	-0.288***	-0.307***
	(0.0153)	(0.0167)	(0.0164)	(0.0165)	(0.0338)	(0.0395)
Controls*	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.182*	0.893*	0.408***	0.617	-1.677***	-1.514***
	(0.106)	(0.529)	(0.113)	(0.535)	(0.219)	(0.232)
Observations	4,903	4,903	4,903	4,903	10,318	10,318
R-squared	0.089	-0.083	0.057	0.043	0.080	0.039

Controls (age, religion, number of children, husband's age, and education qualifications) and **fixed effects** (geographic location and survey year). Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

As mentioned earlier, women's financial autonomy depicts their control over their earnings and how they spend it, whereas HH decision-making (DM) autonomy illustrates their control over various HH-related decisions. Women's financial autonomy represents their control over earnings, which is segregated into solo and joint decision-making with their husbands. Although both OLS and IV estimates are reported in Table 3.4, the following discussion will primarily concentrate on the IV estimation for statistical inferences because it is already presumed that the OLS estimates could be

biased. Also, OLS and IV regression estimates can be discrepant because OLS estimates depend on natural variation across the sample in entirety, while IV estimates are derived solely from the variation attributed to the instrument.

It is apparent from the results presented in Table 3.4 that being employed decreases the likelihood for women to have either solo (in column 2) or joint (in column 4) control over their individual earnings. However, neither of the IV coefficients is statistically significant, hence it is difficult to make any inference regarding the hypothesised association between women's employment and their financial autonomy. Therefore, it is difficult to ascertain any conducive conclusion regarding women's financial autonomy with their employment. However, it should be noted that the negative connotation between women's employment and their financial autonomy is not unusual in existing literature. For example, Anderson and Eswaran (2009) have found that women's employment in their husband's farmsteads is ineffective in inducing financial autonomy, while Kantor (2003) has confirmed the insignificance of women's home-based work in enabling their financial independence. Bearing in mind that the largest segment of women in this study sample lives in rural areas (65%) of which most of the women are employed in the agricultural sector, it can be concluded their lack of financial autonomy could be a consequence of not being paid in cash. Additionally, it can be because HH income generated from agricultural activities is usually managed by men. Furthermore, it is evident that women hand over their income to their husbands and retain no control over HH pooled income in many traditional social settings and more often than not are exploited by their male family members (Elson & Pearson, 1981; Greenhalgh, 1985).

The aforesaid supposition will be further analysed in subsequent subsample analysis, but it must be noted that the association between women's employment and their control over financial resources is non-linear as indicated in the existing literature. For instance, women might voluntarily sacrifice their decision-making authority pertaining to financial assets and saving management to comply with prevailing social norms and gender roles that perceive men as the breadwinners (Samad & Zhang, 2019). It should be noted that the empirical findings of the subsequent chapter (chapter four), based on primary data collected from Bangladesh, substantiate this argument. It is evident that women are willing to forego their control over individual income and HH resources to retain permission to work and as a strategy to tolerate male dominance. This visible and deliberate inclination of working women attempting to compensate for their increased autonomy is not unusual. A study by Mabsout and Van Staveren (2010) has found that "highly educated women face higher levels of social pressure that require them to hand over certain control over men as they might perceive themselves as a deviation from the patriarchal and traditional social norms which designate women with a submissive role in marriage".

From columns 5 and 6 (in Table 3.4), coefficients of both OLS and IV estimates for the HH decision-making index can be seen. It appears that being employed increases the likelihood for women to retain independent control over their HH decision-making domain which is statistically

significant at a 5% level. This finding is consistent with previous literature where women's employment is found to be enhancing their decision-making authority within the HH domain. For example, Acharya, et. al., (2010) used a multivariable logistic regression model to predict four different types of women's HH decision-making (i.e., women's health care, major HH purchases, daily HH essentials and visiting family members) and concluded that Nepalese women's autonomy in HH decision making is positively correlated to their paid employment. Another study by Mumtaz and Salway (2007) has shown that paid employment enabled women in Pakistan to actively participate in HH decision-making. Furthermore, results demonstrate that the IV estimate is significantly higher than the OLS estimate, indicating that the OLS estimate is downward biased. Also, IV estimates could be larger than the OLS estimates for the reason that the IV estimation strategy only recovers the local average treatment effect (LATE) for a subset of the population that receives treatment induced by an exogenous IV, while OLS estimates represent average treatment effect (ATE) across the entire population (Aronow & Carnegie, 2013).

Finally, coefficients of various control variables represent divergent influences of different contextual factors such as women's higher education exerts a significant and positive effect on their financial autonomy but there is no significance in terms of their HH decision-making autonomy. It is evident that women being the HH head themselves is significantly associated with their enhanced autonomy across both financial and HH decision-making domains. Contrarily, women's autonomy, in both financial and non-financial domains of HH decision-making, is substantially curtailed when her husband is the HH head as a reinforcement of patriarchal and male-dominated ideologies where men are in a hierarchical dominant position within the HH. Finally, belonging to the poorest HH (based on the HH wealth index) has a negative impact on women's financial autonomy. The discussion of control variables is limited given the plausibility of endogeneity issues and hence not corroborated in further discussion (i.e., subsample analysis and robustness check).

3.4.3 Subsample Analysis

The categories chosen for subsample analysis are women's level of education, employment sector, and place of residence. The rationale for choosing these variables is driven by the hypothesis that these variables can influence women's level of autonomy. For instance, it is evident from previous studies that rural women working in the agricultural sector experience lower control over income. Therefore, it is crucial to look for any significant variation among different occupational sub-groups. In addition, women's place of residence (rural or urban) is chosen due to significant variations in underlying social norms and restrictions imposed on women in both areas. Finally, education sub-groups are expected to capture any variation driven by the divergent employment opportunities offered to women with different levels of education. It is presumed that subsample analysis will make allowance for investigating the sensitivity of empirical results by segmenting different groups of women as well as for capturing any significant variation among various sub-groups of women. All the

following subsample assessments are based on IV estimation (from table 3.5-3.9) demonstrating heterogeneity among various sub-groups of employed (full-time) women.

Table 3.5 shows that there is a negative association between women's solo financial autonomy and different levels of education (i.e., primary, secondary, and higher). However, this pattern of negative influence is only significant for women with secondary education at a 10% level of significance. Whereas there is a positive association between women's solo financial autonomy with them having no education, but the IV coefficient is not statistically significant. Therefore, it can be deduced that there is some weak evidence that women's employment is only empowering for the least educated in terms of granting them solo financial decision-making power even though the corresponding IV estimate is not statistically significant. Then again, there is no statistically significant variation found among various education sub-groups in terms of women's joint financial decision-making autonomy.

Table 3.5: Women's Financial Decision-Making Autonomy among Education Sub-Groups (Solo vs. Joint)

	Solo				**Joint**			
Variables	Column (1)	Column (2)	Column (3)	Column (4)	Column (1)	Column (2)	Column (3)	Column (4)
Employed	1.549	-0.144	-2.354*	-0.483	-2.473	0.0749	0.257	-0.0549
	(1.518)	(0.643)	(1.426)	(1.912)	(2.036)	(0.691)	(0.914)	(1.910)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-1.386	0.218	2.240**	0.336	3.073	0.495	-0.0637	0.579
	(1.604)	(0.686)	(1.128)	(1.069)	(2.151)	(0.737)	(0.723)	(1.068)
Observations	1,347	1,578	1,478	500	1,347	1,578	1,478	500

Column (1) = Financial Autonomy with No Education, **Column (2)** = Financial Autonomy with Primary Education, **Column (3)** = Financial Autonomy with Secondary Education, **Column (4)** = Financial Autonomy with Higher Education. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 3.6 presents that IV coefficients for women's HH decision-making autonomy are positive across all education sub-groups but only significant for primary education. It is indicative of the fact that the main effect is driven by this sub-group i.e., women with primary education. Therefore, it can be presumed that completing primary education works in favour of women to take autonomous control over certain HH decisions. It is reasonable to assume that primary education enables women to develop basic home management skills and a better understanding of HH well-being including child health, nutrition, and education. However, having a higher level of education (secondary and beyond) does not append any significant variation in terms of women's decision-making autonomy within the HH domain.

Table 3.6: Women's HH Decision-Making Autonomy among Education Sub-Groups

Variables	(No education) HH DM Autonomy	(Primary) HH DM Autonomy	(Secondary) HH DM Autonomy	(Higher Edu.) HH DM Autonomy
Employed	1.384	1.234*	0.489	9.414
	(2.179)	(0.650)	(1.004)	(2.844)
Controls	Yes	Yes	Yes	Yes
Constant	-1.920**	-0.879**	-1.199***	54.00
	(0.814)	(0.433)	(0.450)	(1.714)
Observations	2,239	3,068	3,963	1,048

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In terms of various sub-groups of women employed in different occupations, Table 3.7 demonstrates that being employed in the agricultural sector significantly reduces women's autonomy in terms of both solo and joint financial decision-making. As explained earlier, rural women working in the agricultural sector do not receive any independent income instead their wage is merged into the pooled HH income which is generally handled by men making it difficult for women to retain any control over HH financial resources. Therefore, it can be alleged that the current study substantiates previous study findings (Anderson & Eswaran, 2009; Kantor, 2003) and confirms that working in the agricultural sector reduces women's financial autonomy.

Table 3.7: Women's Solo and Joint Financial Autonomy among Employment Sub-Groups

	Solo Financial Autonomy			**Joint Financial Autonomy**		
Variables	Agriculture	Wage Labour	Services	Agriculture	Wage Labour	Services
Employed	-1.305**	-0.481	-1.001	-1.260*	2.099	-1.449
	(0.570)	(1.471)	(1.295)	(0.662)	(3.103)	(1.964)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.581***	1.068	1.529*	1.483**	-1.457	1.667
	(0.588)	(1.433)	(0.908)	(0.683)	(3.023)	(1.377)
Observations	2,098	1,590	1,190	2,098	1,590	1,190

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

However, Table 3.8 shows that there is no statistically significant variation in women's HH decision-making autonomy across various employment sub-groups. Therefore, it can be deduced that there is no visible heterogeneity in working women's experiences of HH decision-making autonomy.

Table 3.8: Women's HH Decision-Making Autonomy among Employment Sub-Groups

Variables	**HH DM Autonomy**		
	Agriculture	Agriculture	Agriculture
Employed	3.539	3.539	3.539
	(3.744)	(3.744)	(3.744)
Controls	Yes	Yes	Yes
Constant	-4.944	-4.944	-4.944
	(3.737)	(3.737)	(3.737)
Observations	1,661	1,661	1,661

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Finally, Table 3.9 exhibits a subsample analysis of women's financial (both solo and joint) autonomy and HH decision-making autonomy based on their place of residence (urban vs rural). It is evident that working women living in urban areas enjoy a higher level of autonomy with respect to their HH decision-making, which is statistically significant 5% level. However, there is no variation in terms of women's financial autonomy (either solo or joint) which is conditional upon their place or residence.

Table 3.9: Subsample Analysis based on Women's Place of Residence

	Solo Financial Autonomy		**Joint Financial Autonomy**		**HH decision-making autonomy**	
Variables	Rural	Urban	Rural	Urban	Rural	Urban
Employed	-0.449	1.449	0.180	-4.465	0.879	2.398**
	(0.432)	(2.768)	(0.459)	(5.549)	(0.897)	(1.097)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.586	-1.327	0.201	4.636	-1.563***	-1.998***
	(0.421)	(2.436)	(0.447)	(4.883)	(0.298)	(0.475)
Observations	3,242	1,661	3,242	1,661	6,601	3,717

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In summary, it can be concluded that women's financial autonomy is heterogeneous for women working in different employment sectors and the sub-group of women working in agriculture is financially marginalised. In terms of women's HH decision-making autonomy, there is no variation in terms of their employment sector, but it is effectively heterogeneous for women with different education levels and places of residence. Based on the findings of subsample analysis, it can be reaffirmed that the effects of women's employment are non-linear and heterogeneous across various domains of autonomy (both financial and non-financial), which can lead to separate pathways of their empowerment via autonomy. Thus, it is imperative to be cautious while measuring different domains of women's autonomy which should be carefully constructed and interpreted as women's autonomy in a specific domain will not automatically transcend into all domains of empowerment.

3.4.4 Robustness Check

To evaluate the reliability of the IV regression model, this study attempts to examine how "core" regression coefficient estimates (i.e., solo financial autonomy, joint financial autonomy and HH decision-making autonomy) perform when the original regression specification is altered. For that reason, the following IV regression estimates (in Table 3.10) are derived from a reduced sample which only includes women with their husbands as the HH head. The rationale for dropping any HH where the HH head is a woman is a cautious attempt to avoid reverse causality. It is assumed that women will be inevitably more autonomous in a situation where their husbands are not present.

In the reduced sample where women with husbands as the HH head are only included, it is evident that the results are similar to the main analysis with a slightly stronger IV estimate for HH decision-making autonomy, which is statistically significant at a 5% level. Thus, it can be interpreted that women's employment significantly increases their autonomy relating to HH decision-making.

Nonetheless, there is no statistical significance in terms of women's financial autonomy (both solo and joint), which is identical to the main IV estimation. These contradictory pathways of women's financial and HH decision-making autonomy induced by their employment and conditional upon the gender of the HH head reinforce the hierarchical power structures in marriage. In a patriarchal society, men are considered the breadwinners and in control of HH's financial resources, while women maintain their socially expected role as the primary caretakers of the family. Women sustain male dominance by allowing their husbands to reign in the financial domain, while they manage the HH-related decisions. These results signify an apparent trade-off between the control over different HH domains perpetuated by working women with a striking distinction between financial and non-financial bargaining power. There is no denying that women's employment augmented their control over the HH decision-making domain, but men are still in control of HH resources and finances in the context of Bangladesh.

Table 3.10: Robustness Check with Reduced Sample

Variables	**Solo Financial Autonomy**	**Joint Financial Autonomy**	**HH decision-making autonomy**
Employed	-0.461	-0.389	1.872**
	(0.548)	(0.603)	(0.750)
Controls	Yes	Yes	Yes
Constant	0.369	1.177*	-1.583***
	(0.590)	(0.648)	(0.315)
Observations	3,840	3,840	7,952

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

3.5 Conclusion

This study contributes to the extended literature by focusing on women's empowerment because of their increased access to resources (Anderson & Eswaran, 2009; Doss, 2013; Lecoutere, 2017; Mishra & Sam, 2016). It is clear from the results that women's employment significantly affects their HH decision-making autonomy. However, there is no statistically significant association found between employment and women's financial autonomy. Hence, this finding holds importance for future policy recommendations aimed at women's empowerment through employment generation, indicating that its significance might vary across different dimensions of empowerment. Although this study suggests a positive association between women's employment and autonomy, there is heterogeneity among various sub-groups of women. However, it is essential to reflect upon the limitations of empirical analysis before deriving any causal inference. Regardless of the attempt to account for the endogeneity bias using an exogenous instrumental variable, the interpretation of marginal effects must be dealt with caution and careful consideration.

Previous studies (e.g., Fuseini & Kalule-Sabiti, 2016) have indicated that determinants of women's autonomy can vary across different domains of HH decision-making and suggested the significance of social contexts and prevailing cultural norms in mediating the hypothesised association. Therefore, it would be an interesting extension of the current study if the roles of social

norms and traditions could be analysed within the framework of women's employment as a determinant of their autonomy and empowerment. The current study plays a crucial role in comprehending the intricate and complex nature of women's autonomy, which not only differs across various HH decision-making but is also influenced by the prevailing social norms and gendered ideologies within a country, shaping gender roles within the HH domain. Therefore, women's employment might not be sufficient to challenge the gendered division of power within the HH domain, where men are considered the breadwinner of the family in a patriarchal society. The study perceives that women might downplay their authority and control over HH decision-making to sustain the traditional gender roles and social expectations (Diana Deere et al., 2012). It is therefore extremely important to understand the underlying social contexts while analysing women's relative bargaining power and autonomy before making any unequivocal inferences. However, the significance of women's employment in empowering them cannot be overlooked and should not be measured without taking into consideration the relevance of the social contexts they are living in. In a patriarchal society where women's societal position is severely curtailed and their ownership of financial resources and assets is limited, employment can be instrumental in providing them with financial independence. Even though women in such societies do not retain the 'exit options' like women in Western countries, employment can still be effective in lessening the prevailing gender imbalance of power relations within the HH domain, as implied by the HH bargaining theories.

This study is particularly based on the HH-level survey data from Bangladesh thus, the underlying contexts should be considered before making any generalised interpretation. The study uses a cross-sectional BDHS 2014 dataset, and it limits the scope of the study to capture the dynamic and continuous process of women's empowerment. However, the study carefully considers specific domains of women's autonomy as indicators of their empowerment for a specific point in time to address this restriction. In addition, it is also understood that certain pathways of empowerment, such as women's perception of domestic violence, might be associated with inter-generational exposure and other time-variant factors, which are hard to capture in a time-bound study. In the BDHS 2014 survey dataset, women's control over their own income (financial autonomy) and various domains of HH-related decisions (HH decision-making autonomy) are self-reported. Therefore, there could be potential under-reporting and/or over-reporting of women's autonomy, given that the responses are based on their perceived sense of empowerment instead of an actual manifestation of their level of empowerment. Moreover, women respondents have been used to analyse their financial and HH decision-making autonomy, whereas the power relations within the marriage can be best understood when both spouses' perceptions regarding women's autonomy are included. Therefore, a plausible extension of the current study could investigate women's autonomy within the domains of marriage and household, where an in-depth understanding of both spouses is incorporated.

Nevertheless, this study suggests that women's empowerment should be measured from a multidimensional perspective, which is not only limited to their autonomy but is inclusive of various aspects of their lives, such as well-being and protection from domestic violence. The scope of the current study does not make allowance for including such measures due to data unavailability, but the current research aims to address other domains of women's empowerment beyond autonomy. Hence, the following chapter in this thesis will focus on contextual factors such as social norms and regional traditions. The following chapter aims to explore the impact of women's employment on another facet of their empowerment, specifically their vulnerability to intimate partner violence. This will involve utilising a mixed-method approach for a comprehensive examination.

Chapter 4

Empowering Women: A mixed-method approach to unveil heterogenous pathways between employment and IPV in Bangladesh

Abstract

Despite substantial improvement in women's social and economic status, violence against women remains alarmingly high in Bangladesh. While an expanding body of research indicates that enhancing women's financial empowerment has the potential to reduce the risk of women's exposure to intimate partner violence (IPV), it might not be proportionately effective in highly gender-stratified social contexts. Thus, the riddling question persists, how does this rapidly changing socio-economic status of employed women fit within the household (HH) dynamics of a patriarchal society like Bangladesh, especially where violence is commonly used to assert male dominance? Therefore, this paper aims to investigate the association between women's employment and their exposure to IPV. A mixed method approach has been used to address the complexities of underlying social norms and gender relations to women's IPV experiences in Bangladesh. Semi-structured interviews and survey questionnaires have been used to collect data to explore the intricate nature of IPV. The findings suggest that various pathways stemming from women's employment can have differentiated effects on their individual IPV experiences. The result shows that financial autonomy via independent income and reduction of HH poverty act as preventive measures of IPV, whereas women's greater control over HH resources and increased bargaining power can potentially increase their IPV exposure. Additionally, women's increased mobility and exposure to public spheres prompt the likelihood of IPV exposure underscoring the deeply ingrained male-controlled social norms, which have historically kept women secluded. Interestingly, the study has revealed that it is women's income instead of their employment status, which significantly decreases the risk of IPV exposure. Moreover, sub-sample analysis indicates heterogeneity in women's IPV experiences, which can partly be attributed to prevailing gender norms, social expectations, and differentiated levels of community involvement. However, the finding also suggests that working women try to counterbalance their authority within various HH decision-making domains to sustain their permission to work. Thereupon, it is assumed that women's employment and/or education might not be sufficient in safeguarding women against domestic violence in a society where women feel pressured to tolerate abuse due to lack of family support and stigma around divorce making their perceived 'exit options' obsolete.

Keywords: Women's employment, HH bargaining power, Intimate partner violence (IPV), Gender relations, Social norms, Community involvement, Bangladesh

4.1 Introduction

Gender-based violence remains a widespread and persistent issue that continues to affect individuals globally. Women are at a greater risk of violence from their intimate partners compared to other kinds of perpetrators (Garcia-Moreno et al., 2006). Accordingly, intimate partner violence (IPV) has become one of the most common forms of violence against women (Devries et al., 2010). Incidents of IPV are predominant across various regions of the world, with the lowest prevalence found in the Western Pacific high-income regions of Europe and America (20%-25%) and the highest (31%-33%) in South-East Asia regions (World Health Organization, 2021). Approximately 1 out of every 3 women worldwide have been exposed to some form of physical or sexual abuse by their intimate partners (Devries et al., 2013; Erten & Keskin, 2021; Mwale et al., 2021). Considering the magnitude and scale of such global phenomena, IPV has been regarded as a major public health concern and recognised as a violation of human rights by the United Nations (UN). Yet, no clear consensus has emerged on the underlying causes of IPV (Erten & Keskin, 2021). Improving women's economic independence by granting them greater access to financial resources has traditionally been seen as a key strategy to diminish IPV (e.g., Ahmadabadi et al., 2020; Bhattacharyya et al., 2011; Breiding et al., 2017; Golden et al., 2013). However, evidence supporting this causal connection is not overwhelming (Bulte & Lensink, 2021).

An expanding body of research indicates that enhancing women's financial empowerment potentially provokes adverse reactions from men when male domination feels threatened (e.g., Caridad Bueno & Henderson, 2017; Cools & Kotsadam, 2017; Gedikli et al., 2023; Luke & Munshi, 2011). Moreover, women with lower socio-economic status are at a significantly higher risk of victimisation compared to those who are better off (Barusch et al., 1999; Tjaden & Thoennes, 1998; Tolman, 1999). This presents a crisis of excessive magnitude in less developed and developing countries like Bangladesh (Hossain et al., 2022; Sambisa et al., 2011; Yount et al., 2016). In fact, Sabarwal et al. (2014) have shown that while women's financial empowerment can reduce the risk of IPV in general, it may not be as effective in more gender-stratified social settings. Therefore, the question remains: how do financially independent women fit into household (HH) dynamics in a highly gender-stratified country like Bangladesh, where men traditionally hold supreme authority and are considered the primary breadwinners? Moreover, despite significant transformation in the socio-economic status of women alongside considerable advancement in gender roles, and social norms (Schuler & Nazneen, 2018); the domestic violence rate against women remains alarmingly high in Bangladesh (Esie et al., 2019; World Health Organization, 2021). So, the question persists: how the rapidly changing socio-economic status of employed women is being accepted in a social context where violence is the most utilised tool to assert dominance and sustain women's subservient social status? Therefore, the primary aim of this final paper is to illustrate the association between women's employment and their exposure to IPV in Bangladesh.

It is also argued that social norms, cultural settings, and religious values influence women's perception of violence, significantly impacting their self-judgment, understanding of victimisation, and responsiveness to IPV. For instance, different women may have varied interpretations of what constitutes violence (Bent-Goodley, 2004), which can affect their experiences of domestic violence in different ways (Mwale et al., 2021). In some contexts, IPV is not only tolerated but also seen as a husband's religious and legitimate right to discipline his wife (Corradini & Buccione, 2023). As a result, women may perceive violence used against them as painful or wrong but might not necessarily label it as a crime, given the normalisation and acceptability of violence within social relationships (Gibbs et al., 2020). Hence, it is imperative to consider that the social contexts and underlying factors, such as power structures, gender dynamics, and male dominance, all contribute towards their abusive behaviour against women (Felson & Outlaw, 2007; Johnson & Ferraro, 2000; Strauchler et al., 2004). Existing literature predominantly emphasises empowering women, yet there is limited understanding of how changes in women's socio-economic status and financial condition alter their perception of violence, and the actual prevalence of IPV by potentially disrupting the established gender norms in a predominantly male-dominated society. Consequently, the conditions under which this transformation occurs remain inadequately investigated (Bourey et al., 2023). It would be intriguing to investigate whether the level of empowerment among employed women is sufficient to withstand the pressure of patriarchy and male dominance. Moreover, research in Bangladesh has presented inconsistent results regarding the link between women's empowerment and IPV (See, Amin et al., 2013; Bates et al., 2004; Koenig et al., 2003; Naved & Persson, 2005; Rahman et al., 2013), suggesting the need for further exploration to understand the significance of various country-specific contextual factors. Additionally, most studies on women's empowerment and the risk of IPV in Bangladesh are based on data i.e., over a decade old and cross-sectional in nature, where women's empowerment is treated as a static factor (Schuler & Nazneen, 2018). Therefore, it is particularly significant to observe how a traditional society adapts to evolving gender dynamics when conventional roles are being challenged, and the current socio-economic landscape in Bangladesh offers an ideal backdrop to investigate such societal transformation.

Exploring the association between women's employment and IPV exposure in Bangladesh is challenging due to the lack of national-level data that represents the prevalence of domestic violence including IPV against women. The latest national-level data on women's exposure to domestic violence and actual prevalence in Bangladesh is documented in BDHS 2007. However, the subsequent rounds of DHS (2011, 2014, 2018) didn't record the occurrence of domestic violence but only women's perception towards violence (questions relating to their perception of wife beating in various circumstances). Therefore, it is difficult to ascertain the actual impacts of women's employment on their IPV experience from any large-scale secondary dataset in Bangladesh. Moreover, quantitative datasets may have limitations in capturing the intricate shifts in power dynamics and the subtle trade-offs within different domains of autonomy, reflecting one of many

methodological challenges (Vyas & Heise, 2014). Women may willingly make trade-offs across these domains to maintain their financial independence, a complexity that can be easily misinterpreted in quantitative interpretation. While it is logical to hypothesise that employed women might have a lower tolerance for domestic violence, various socio-cultural factors, including education, wealth, family support, and social stigma can complicate the causal link between women's employment and IPV. Nevertheless, the empirical literature on social norms regarding gender equality and IPV is hardly more conclusive. Despite some literature advocating for community-wide and inter-sectoral initiatives to shift social norms (e.g., Ellsberg et al., 2015; Michau et al., 2015), the evidence establishing a causal link between social norms and IPV is extremely scant (Bulte & Lensink, 2021). With this in mind, the current study seeks to employ a mixed-method approach to investigate the relationship between women's employment and their exposure to IPV, aiming to address the complexities of social dynamics in IPV prevention. To the best of the authors' knowledge, no study in Bangladesh has yet conducted a mixed method approach to examine the relationship between women's employment and IPV. This approach can be instrumental in corroborating quantitative results with a comprehensive narrative analysis. Considering the contradictory findings in existing literature, the objective of this paper is to clarify whether women's employment can be regarded as a protective or triggering factor against IPV in consideration of various contextual factors (i.e., norms, culture, regional variation, income level, community involvement etc.) in Bangladesh. In addition, this study attempts to identify specific strategies that employed women might plausibly adopt to diffuse marital conflicts and avoid their exposure to IPV.

To achieve these objectives, this study conducted two rounds of data collection. The first round involved in-depth interviews with forty working (full-time) women. In the second round, survey questionnaires were distributed to over three hundred working women respondents from seven (7) divisions of Bangladesh (the 8th and last division couldn't be visited due to the COVID-19 lockdown). The study carried out both in-depth interviews and surveys, gathering data on women's employment and their experiences with IPV across a wide range of social contexts, including different employment sectors, levels of education, income, and place of residence (rural vs. urban) in Bangladesh. The author dedicated a substantial amount of time to conducting interviews of married working women within their natural and regular living and/or working arrangements. This approach was employed to gain a deeper understanding of how women's employment and marital experiences are interconnected (through observation and interaction) and to supplement a comprehensive knowledge of their IPV experiences. Hence, the qualitative narratives are expected to facilitate the quantitative analysis to provide a deeper understanding of causative factors. The quantitative analysis of this chapter is based on a multivariate OLS regression where the primary predictive variable is women's employment in addition to controls such as their education, age, place of residence, income, husband's characteristics, and inter-generational domestic violence experience. To substantiate the statistical inferences, the qualitative data has been thematically analysed using

the NVivo software to explain the correlational association between the main outcome variable of interest i.e., women's exposure to IPV (all three types i.e., physical, verbal, and psychological) and their employment. In addition to analysing the effects of women's employment on their IPV experiences individually, a composite index of all three types of IPV has been formulated using principal component analysis (PCA) to run a multivariate OLS regression to illustrate the overall effects of women's employment on their IPV experiences in last twelve months.

It is assumed that the insights derived from in-depth interviews could be instrumental in dissecting the multifaceted pathways in which women's employment influences their vulnerability to IPV, often resulting in conflicting outcomes. For example, specific aspects of women's employment, like achieving financial independence and reducing HH poverty, can act as preventive measures against IPV. However, when women gain greater control over HH resources and increased bargaining power, it can challenge the prevailing traditional male dominance, potentially leading to an increase in violence, which is consistence with the 'male backlash theory' (Bhalotra et al., 2021). The interviewees (full-time working women) also revealed that their enhanced public exposure and mobility can trigger the risk of IPV exposure irrespective of their place of residence and educational background. This underscores the enduring influence of social norms and deeply ingrained patriarchal traditions that have historically kept women isolated from public spaces in Bangladesh for a long time. The findings reveal that women try to counterbalance authority over certain domains within the household to sustain their permission to work. Nevertheless, it is also clear that women highly value their employment because it provides them with financial autonomy, which is crucial for their sense of empowerment and self-reliance. As a result, it is evident that meanings of specific empowerment dimensions within society evolve over time as the forms of empowerment that were once considered 'incipient' (see figure 4.1), and relatively uncommon now became widely accepted as conventional social norms (Schuler & Nazneen, 2018).

The survey results underscore the intricate nature of the connection between women's employment and their susceptibility to IPV, as previously highlighted in the interviews. It is also evident that various pathways stemming from women's employment can have different impacts on their individual experiences of IPV. Notably, the study revealed that it is their income, rather than merely their employment status, which significantly decreases the likelihood of women being subjected to IPV. In this regard, the current study validates previous research by affirming that women's employment serves as a protective factor against IPV (e.g., Aizer, 2010; Anderberg et al., 2016; Chin, 2012), aligning with the prevalent assumption that enhanced employment status of women or reduced wage gap diminish marital violence and abuse. Nevertheless, as the "relation between empowerment and IPV is complex and possibly bidirectional, and presumably context or culture dependent" (Bulte & Lensink, 2021), the sub-sample analysis conducted in the present study reveals heterogeneity in women's IPV experiences among various sub-groups of women. The results indicate that urban women from lower income backgrounds face a higher risk of IPV compared to

their rural counterparts, which somewhat corroborates with previous studies (e.g., Eswaran & Malhotra, 2011; Heath, 2014) and demonstrates that women belonging to lower-income group are at a higher risk of IPV. However, such differences in the likelihood of IPV exposure between employed women living in urban and rural areas can be attributed to varying levels of community involvement and support groups (Schuler & Nazneen, 2018). Findings from the interviews support this argument that urban areas may offer fewer close-knit communities and support networks for women while rural areas often have stronger community involvement and support systems which can influence women's vulnerability to IPV. Interestingly, in contrast to earlier research findings (e.g., Bates et al., 2004; Bhuiya et al., 2003; Naved & Persson, 2005; Rahman et al., 2011), the current study results indicate that women participating in microcredit and other SME enterprise activities experience lower levels of IPV compared to women in conventional workplace-based employment. Hence, these findings are reflective of the significance of women's community involvement which is identified as a protective factor of IPV.

While acknowledging the limitations of this current study (see conclusion for details), it is important to underscore that its uniqueness lies in its ability to dissect the intricacies of women's empowerment, particularly through the pathways of employment in this specific context, and its association with their vulnerability to IPV. The realistic representation of women's empowerment via employment and their IPV experiences shaped by diverse and changing influences mirrors the mixed findings present in the existing literature. Therefore, this study refrains from presenting women's employment as a singular remedy for their susceptibility to IPV. It proposes that the true potential of women's access to resources such as education and employment can be maximised in an environment conducive to a sustained transformation of women's subservient position in society. Nonetheless, achieving this goal necessitates more than providing women with access to employment opportunities and/or education; it demands a holistic approach to women's empowerment. This approach should not only prioritise their financial independence but also consider their overall well-being, including protection against domestic violence, as an essential component. For instance, women facing abuse are more likely to receive assistance when they seek help in a community that has been activated and educated about women's rights, signifying a shift in attitudes where IPV is no longer tolerated or considered acceptable (Cools & Kotsadam, 2017; Schuler & Nazneen, 2018). Accordingly, this study proposes a conceptual framework to comprehend the multi-faceted and dualistic connection between women's empowerment and IPV in environments where gender norms are continuously evolving (see Figure 4.2).

The remainder of this chapter is structured as follows. The subsequent section offers a review of existing literature on employment's role in women's intimate partner violence (IPV), along with a theoretical framework. The third section outlines the study sample, measurement method, and econometric techniques used in this paper. Subsequently, section four presents a comprehensive

overview of summary statistics, empirical outcomes, and findings. Finally, section five encapsulates the study's outcomes and offers concluding remarks.

4.2 Literature Review

Violence against women is "an act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" (The United Nations, 1993, p. 3). While " violence" is the predominant term used to address aggression against women in various parts of the world (Hearn, 2012), other terms such as "intimate partner violence (IPV), “domestic violence”, "domestic abuse", "domestic assault", "battering", "marital dispute", "wife beating", "marital discord", "intimate fighting", "mate beating", "conjugal violence", "marital violence", "familial violence", and "gender violence" are frequently used interchangeably to express the same concept (Ellsberg et al., 1997; Hearn & McKie, 2008; Mears, 2003). For instance, domestic violence refers to “any acts of violence conducted on individuals within a household, such as between spouses, siblings or parents and children, and often women are the victims relative to men” (Mwale et al., 2021, p. 1). Similarly, IPV is referred to as “behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours” (Mbadugha, 2016; Swanberg et al., 2005). In such a sense, domestic violence or IPV can be classified as a subset of violence perpetuated against women by their husbands or intimate partners as well as close family members (Kelly, 2003; Kishor & Johnson, 2004). The above discussion highlights the spectrum of abuses and harm that women may experience within their societal context, which not only infringes upon their rights but also compels them to make diverse choices and restricts their actions (Hanmer & Griffiths, 2000).

According to World Health Organization (2021), male intimate partners engage in various types of domestic or intimate partner violence, including physical violence (e.g., slapping, hitting, kicking, dragging, and beating), sexual violence (e.g., forced intercourse and other forms of coerced sex), emotional violence (e.g., intimidation, threats, and humiliation), and controlling behaviours (e.g., restricting contact with friends and family, ignoring, and suspecting women). Aforesaid behaviours have adverse effects on women's physical, reproductive, sexual, and psychological health, including physical injuries, depression, anxiety, and post-traumatic stress disorder (i.e., Davies et al., 2015; Heidari & Moreno, 2016; Lutgendorf, 2019; Postmus, 2012) as well as various long-term aftereffects (Garcia-Moreno et al., 2006; Schuler et al., 2013). Moreover, IPV diminishes women's productivity, hinders their financial prospects (Peterson et al., 2018) and challenges work-life balance which might worsen their financial hardship and limit their ability to leave an abusive relationship (Sullivan et al., 1992; Walker et al., 2004). Consequently, various actions such as withholding funds, denying access to food and necessities, controlling healthcare and employment access, and refusing financial contributions are classified as acts of financial or economic violence.

These economic impediments have always been identified as one of the major obstacles towards women's empowerment (Niyonkuru & Barrett, 2021; Postmus et al., 2020). As a result, employment generation for women is expected to facilitate them with financial independence as a means to prevent IPV exposure within marriage.

A lot of emphasis has been placed on empowering women via employment generation all over the world (Bulte & Lensink, 2021) and many argue that women's employment is the primary means to exercise an "exit option" from abusive relationships (Aizer, 2010; Anderberg et al., 2016; Rusbult & Martz, 1995). It is believed that employment empowers women by increasing their resources and agency, reducing their acceptance of violent or abusive behaviour, and addressing power imbalances in any abusive relationship, thereby decreasing the risk of victimisation (Schuler & Nazneen, 2018). However, the existing evidence predominantly supports contrasting views based on two theoretical lenses i.e., "household bargaining theory" and "male backlash theory" to explain women's IPV exposure in relation to their employment (John, 2020; Mwale et al., 2021). Proponents of the "household bargaining theory" argue that increased financial opportunities potentially lower the risk of violence for women by strengthening their bargaining power. Employed women are empowered with a stronger voice and authority in the HH decision-making process (Kantor, 2009), which enhances their autonomy in household matters and reduces the likelihood of experiencing IPV (Mavisakalyan & Rammohan, 2021). In fact, women who are employed tend to be respected and treated better by their husbands, leading to a reduction in domestic violence (Marjorie B. McElroy, 1990; Marjorie B. McElroy & Mary Jean Horney, 1981). According to Rothman et al. (2007), employment plays a crucial and critical role in preventing IPV. Various studies (e.g., Ahmadabadi et al., 2020; Breiding et al., 2017; Golden et al., 2013) have shown that women's financial autonomy achieved through employment can serve as a protective factor from IPV given that financial vulnerability is associated with greater exposure to IPV. According to Mwale et al. (2021), financial autonomy serves as the primary mechanism through which this relationship operates. Existing literature (e.g., Bhattacharyya et al., 2011; Duvendack & Mader, 2020; Gibbs et al., 2017; Kinyondo & Joseph, 2021; Vyas & Watts, 2009) reinforces this claim by demonstrating that involvement in microcredit initiatives such as village savings loans, microfinance, small loans etc. are linked to the reduction of IPV prevalence. However, such a connotation of employment leading to a reduction of IPV may be skewed due to the selection bias (Bajracharya & Amin, 2013). Alternatively, it has been consistently found that microcredit loans meant to empower women often end up controlled by husbands or male family members, leading to funds being redirected to increase HH income and male-owned assets (Garikipati, 2008). Consequently, women's dependence on men for loan repayment during domestic disputes renders them more susceptible to violence. Therefore, it is difficult to ascertain the direction of a causal association between women's employment and IPV in the presence of such complexities.

On the contrary, proponents of "male backlash theory" support the argument by suggesting that women's financial empowerment can result in increased IPV (Aizer, 2010; Luke & Munshi, 2011). It is argued that women with relatively higher income and/or educational attainment than their respective partners are more susceptible towards IPV exposure since their self-sufficiency poses a challenge to the long-established gender norms (Anderson, 1997; Atkinson et al., 2005; Chin, 2012; Macmillan & Gartner, 1999). Also, men can resort to violence to compensate for their diminishing relative bargaining power in marriage (Girard, 2009). According to Jewkes et al. (2002), women might be subjected to violence once they begin to question rigid gender roles as a result of their enhanced financial autonomy via employment. Women's financial empowerment can trigger male insecurity and a sense of economic inadequacy, consequently resulting in increased violence (Rahman et al., 2011). Different studies (e.g., Goetz & Gupta, 1996; Kaukinen, 2004; Schuler et al., 1998) have confirmed that men often take advantage of violence against women to impose their dominance and restate inegalitarian gender roles within marriage when their wives become financially autonomous and empowered. Furthermore, several studies in Bangladesh (e.g., Bates et al., 2004; Bhuiya et al., 2003; Naved & Persson, 2005; Rahman et al., 2011) show that women involved in microcredit programmes experienced higher levels of IPV. Besides, several studies, with a concentration on microcredit and women's empowerment, suggested that women's control over financial resources could lead to an increased risk of domestic violence (Goetz & Gupta, 1996; Leach & Sitaram, 2002; Rahman et al., 2011). According to Vyas et al. (2015), women's employment can be associated with a higher risk of IPV in some social settings but inversely related in others. Hence, the existence of conflicting perspectives in the literature underscores the complexity of this hypothesised causal association between women's employment and their exposure to IPV challenging the existing theoretic presumptions and reflecting the significance of underlying contextual factors (Mwale, 2023).

Different scholars (e.g., Allen & Straus, 1980; Brown, 1980; Whitehurst, 1974) underscore the correlation between marital violence and husband's feeling threatened by any alteration in traditional power dynamics when women gain financial independence, begin to challenge gender roles, and/or pursue gender equality. In such cases, violence is often used by men as the ultimate weapon to keep their wives in control (Allen & Straus, 1980; Brown, 1980). For instance, the high labour force participation of women in Nepal, coupled with alarmingly high rates of IPV, underscores the profound influence of deeply entrenched societal constructs shaping women's experiences of IPV (Ghosh et al., 2017; Yoshikawa et al., 2014). In addition, a study by Dalal (2011) in India revealed a higher prevalence of IPV among working women compared to non-working women emphasising that women's financial empowerment might not be sufficient to challenge the deep-rooted cultural norms. Furthermore, advocates of family violence theories (Kalmuss & Straus, 2017; Rusbult & Martz, 1995; Straus & Gelles, 2017; Strube & Barbour, 1984; Yount, 2005) assert that the nature of women's dependence on their husbands, particularly in traditional value systems, significantly

impacts the dynamics of IPV prevalence, as they often endure abuse for the survival of familial harmony. For instance, Terrazas-Carrillo and McWhirter (2015) found that women's employment status is a significant predictor of domestic violence in Mexico only when the husband's controlling and dominant behaviour is not controlled in the model, suggesting that spousal control acts as a mediator in the relationship between women's employment and IPV. Besides, there is substantial evidence (Bobonis et al., 2013; Fakir et al., 2016; Hindin & Adair, 2002; Koenig et al., 2003; Krishnan et al., 2010; Sabarwal et al., 2014) to suggest that women face increased intimidation and violence because of their increased participation in household decision-making, primarily due to their improved financial autonomy.

Interestingly, studies in Bangladesh (Johnson & Das, 2009; Kamal & Hassan, 2015; Kamal & Ulas, 2022) show that even men's employment status and income are significantly associated with IPV. For instance, Bhalotra et al. (2021) concluded that unemployment rates for men and women have an opposing effect on IPV prevalence. They have found that male unemployment is linked to increased physical violence against women due to financial and psychological stress, while higher female employment raises the risk of women becoming victims, especially in societies where their options to leave abusive relationships are limited. However, while a study in South Africa (Jewkes et al., 2002) found that men's unemployment was associated with IPV, a study in Peru (Garcia-Moreno et al., 2006) found that men's unemployment was not associated with IPV. One of the justifications for such a confounding relationship between men's income and IPV might be stronger in a context where men's income is perceived as a measure of their status and power. In a marriage, power imbalance is found to be a direct trigger for men to perpetuate IPV (Delsol & Margolin, 2004). Hence, these findings underscore the importance of contextual factors, including social norms, culture, religion, and geographic distance, in influencing the extent to which traditional predictors of empowerment such as employment, and/or income can exert a dominant impact on IPV.

Additionally, the impact of women's employment on their vulnerability to IPV varies based on diverse socio-economic factors, including types of income, income distribution, asset ownership, and allocation of their earned income within the HH. Rowlands (1997) stated that while women’s financial autonomy can transcend to their empowerment, it is conditional upon additional opportunities they acquire which determines their exposure to domestic violence. For example, women’s income contribution towards household expenses appears to be putting them towards a larger risk of IPV exposure (Anderson, 1997; Hadi, 2005) whereas women’s control over resources such as HH assets and properties are found to be protective against IPV (Dalal, 2011). Song and Dong (2017) investigated the impacts of women’s asset ownership (i.e., land rights) relating to domestic violence in the rural areas of China and found that women who own no land (including those who lost land claims) are at significantly higher risk of domestic abuse both physical and psychological. Besides, a few studies have suggested that women’s earnings and/or financial contribution to the pooled HH income put them at a higher risk of exposure to domestic violence (Amin et al., 2013; Bates

et al., 2004; Naved & Persson, 2005). Then again, it is not only the level of income but the relative income between married couples and their debt-to-income ratios that could perpetuate violence (Anderson, 1997; Fox et al., 2002). According to Tauchen et al. (1991), the link between income and IPV is intricate; an increase in women's income may reduce violence, but this effect may not hold when women earn more than men, potentially leading to increased violence. Particularly, Anderson (1997) have illustrated that men were more likely to perpetrate physical IPV when they earned less income compared to their wives. Furthermore, Angelucci (2008) validates such an argument by showing that while women's participation in a federal welfare programme granted them financial resources, it also increased violence perpetuated by their husbands. Adding to the conundrum, Hadi (2005) indicated that women's engagement in income generation activities for at least five years has statistically significant effects in reducing the likelihood of IPV exposure implying a prolonged time period might be required for women's employment to alter gender dynamics and their empowerment to become a conventional norm. Besides, Heath (2014) asserted that the correlation between wage-based employment and women's exposure to IPV is higher for women who are married at an early age and/or have a lower education level.

The significance of women's education in reducing their IPV risk is well-established (Amin et al., 2013; Bates et al., 2004; Koenig et al., 2003; Shrestha, 2022). However, Eger et al. (2018), state that "formal educational systems replicate social norms, dominant values and drivers". As a result, such dynamics can exacerbate inequality and reinforce disempowerment within society by perpetuating established hierarchies and exclusions (Bivens et al., 2009). For instance, Srinivasan and Bedi (2007) presented that, while husbands with higher education are less prone to perpetrating violence, the education level of women does not seem to provide any alleviation in rural India. In addition, Erten and Keskin (2018) show that an increase in education among rural women in Turkey led to an adverse effect on their psychological violence and experience of financial control behaviour with no change in physical violence or women's attitudes towards violence. Similarly, Hosein (2019) presents that increased levels of education led to a backlash effect among men and potentially increased the risk of domestic violence against women in Trinidad and Tobago. According to Garcia-Moreno et al. (2002), "where women have a very low status then violence is not 'needed' to enforce male authority…partner violence is thus usually highest at the point where women begin to assume non-traditional roles or enter the workforce". In that regard, women's education leading to awareness might create tension in marriage and pose a threat to male dominance by challenging traditional male norms and potentially leading to violence perpetuated by men as a way to assert authority (Srinivasan & Bedi, 2007). Hence, while women's education, has proven to enhance gender equality and empowerment by boosting self-confidence, awareness of rights, and broadening social connections (Eger et al., 2018), it is paradoxically linked to IPV, presenting a dilemma whether education liberates women without granting them real independence or power.

Furthermore, the impacts of poverty, financial, stress, and lack of tangible resources, in increasing the odds of IPV occurrence, have been recurrently reviewed in existing literature (Bachman & Peralta, 2002; Ellsberg et al., 1999; Martin et al., 2002). For instance, the association between financial stress and IPV is consistently observed worldwide, with a more pronounced impact in less developed nations marked by pervasive poverty, where extensive research (Adelman et al., 2012; Haarr, 2010; Iliyasu et al., 2013; Schuler et al., 2012) demonstrates that financially disadvantaged women are at a heightened risk of IPV and often conform to violence due to prevailing societal norms. Moreover, Barrington et al. (2022) refer to poverty as the main contributing factor of physical IPV, while Lucero et al. (2016) show that women with experience higher financial hardship had the highest odds of being exposed to IPV. It is also argued that variation in geographic factors might explain why studies have different relationships between economic factors and IPV (Garnelo et al., 2019; Johnson & Das, 2009; Loseke & Kurz, 2005). In addition, religion is often exploited to reinforce male dominance (Akhtar, 2013; Imam & Akhtar, 2013; Muzaffar et al., 2018), which influences women's exposure to IPV. Stith et al. (2004) confirmed that society's condoning attitude towards domestic violence and women is significantly associated with the actual prevalence of IPV. Likewise, attitudes in favour of IPV are a significant predictor of the actual prevalence of IPV (Cano & Vivian, 2001; Carr & VanDeusen, 2002). Also, intra-generational exposure to violence is repeatedly found to be a significant predictor of IPV perpetration in adulthood (Chen & White, 2004; Gil-González et al., 2008; McKinney et al., 2009; Murrell et al., 2007; Rosenbaum & Leisring, 2003). Another probable reason why some studies have observed no significant relationship between economic factors and IPV is that the measures used to assess women's financial independence might not be sufficient to capture the associated complexity. For example, a study conducted by Loseke and Kurz (2005) has found that income was not associated with IPV, but it only used one indicator of economic well-being i.e., income. In contrast, another study conducted by Allen and Straus (1980) found that men's employment status was positively associated with IPV and the study used multiple indicators of economic well-being such as income, employment status, and financial stress. Hence, it is important to understand that there is more than one causative factor to influence women's exposure to IPV. The inconsistency in findings isn't just about methodological differences or definition inconsistencies but also involves contextual variation (Kabeer, 2011). The consensus among most researchers regarding women's employment and IPV is that the hypothesised relationship between both variables is complex and embedded in multiple domains of their lives including individual, matrimonial, communal, and social structures as well as the global paradigms (Chronister & Aldarondo, 2012; Chronister & McWhirter, 2006). Therefore, the ambivalent inferences regarding the perceived correlation between women's financial autonomy via employment and exposure to IPV appear to be perplexingly challenging to address. Considering such complexities, this study aims to supplement the understanding of this causal relationship between employment and IPV with an in-depth narrative analysis of women's IPV experience (via qualitative analysis) in relation to their employment to augment the findings of quantitative analyses.

4.2.1 Theoretic Framework

The existing literature utilises various theoretical frameworks such as intrahousehold bargaining theory, resource theory, marital dependence theory, or male backlash theory to provide a relevant context for investigating the impacts of IPV within the HH domain. Drawing insights from the game theory, the 'intra-household bargaining model' proposes that equilibrium depends on the relative bargaining power of both parties involved and is not necessarily always Pareto optimal. As said by Lundberg and Pollak (1994, p. 132) ''non-cooperative models of distribution within marriage in which the equilibria are not necessarily Pareto optimal, in which history and culture can affect which equilibrium is realised, and in which distribution may depend on whether resources are controlled by the husband or by the wife''. Therefore, a 'threat point' signifies the potential breakdown of a cooperative arrangement, leading either to marriage dissolution (such as divorce) or to a scenario where household members, while remaining together, disengage into separate spheres, forming a non-cooperative equilibrium based on individual interests and voluntary contributions (ibid). This is unlike the cooperative 'Nash bargaining model' where all the individuals within a specific household aim to work together to maximise the weighted sum of utility of HH and to achieve Pareto optimal and efficient outcomes (Manser & Brown, 1980; Marjorie B. McElroy & Mary Jean Horney, 1981). However, it should be acknowledged that the intra-household distribution is usually aligned with the preference of the individual with a privileged HH position and favourable opportunities. In such cases, the effectiveness of women's bargaining power in reducing domestic violence relies on external factors like social norms, gender relations, legal and socio-economic conditions as well as the potential dissolution of marriage, influenced by various external factors such as children, familial pressure, religious and cultural views. Different studies have previously employed the 'intra-household bargaining model' to analyse such behavioural interactions within the HH domain in relation to domestic violence and IPV (Bhattacharyya et al., 2011; Bulte & Lensink, 2021; Chin, 2012; Eswaran & Malhotra, 2011).

Alternatively, 'male backlash theory' explores the possibility of increased violence against women as a consequence of their financial autonomy which threatens men's authority in the HH domain (Alesina et al., 2021). Such a view is supported by "resource theory" and the subsequent modified version of 'relative resource theory' and suggests that violence can arise within a relationship to restore a balance of power when one partner lacks access to resources compared to the other (Atkinson et al., 2005; Villarreal, 2007). This theory posits that 'power' is the fundamental motivation behind men resorting to violence to reinforce their dominant position within the HH, especially if their socially expected role as the 'breadwinner' of the family is challenged (Gelles, 2007). Historically and empirically, it is globally observed that men usually have more access to various forms of power compared to women. According to Pratto and Pitpitan (2008), power is gendered and these gender-specific forms of power sustain systematic and hierarchical inequalities within a society. Different studies (Atkinson et al., 2005; Basile et al., 2013; Chung et al., 2008;

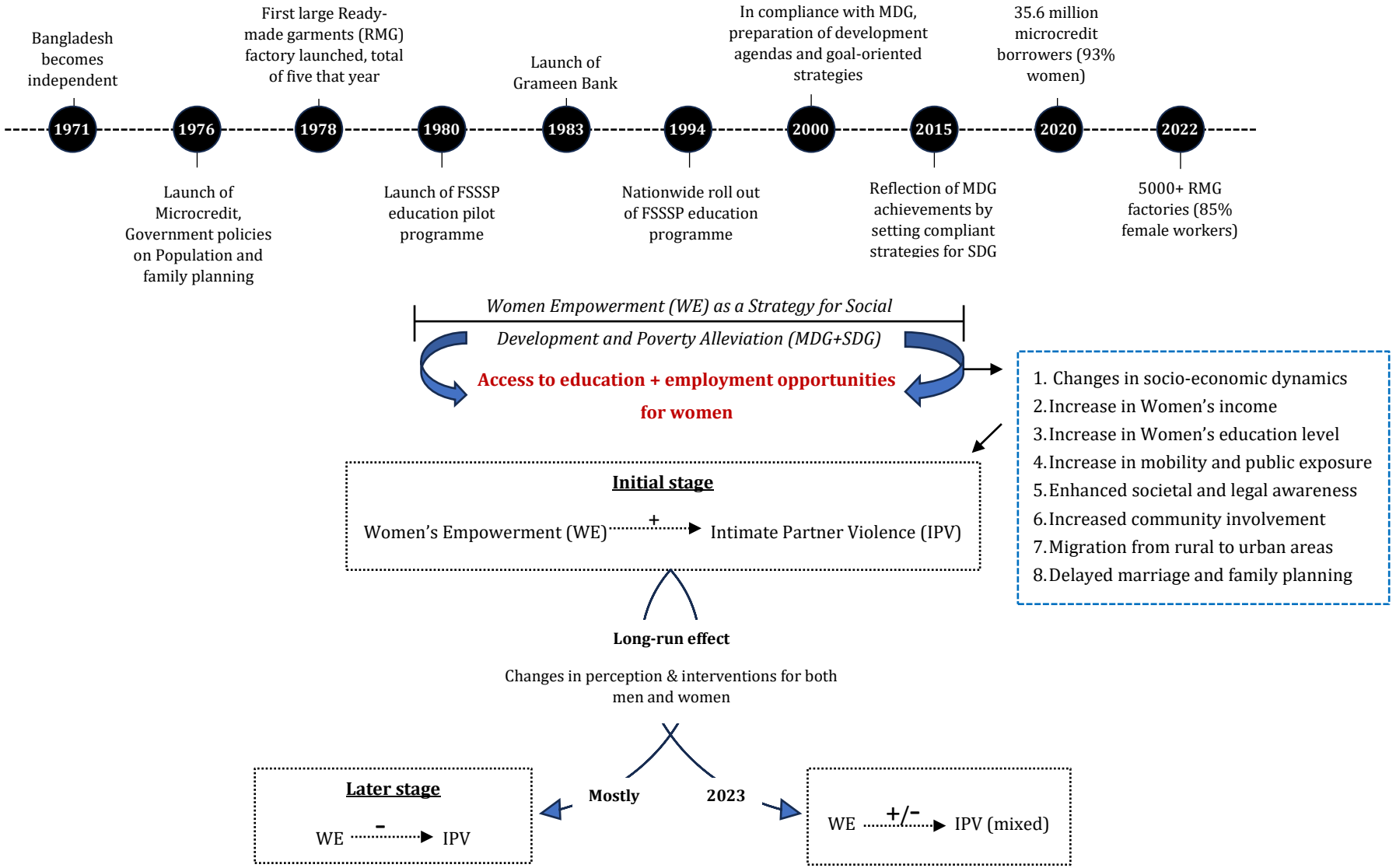
Cubbins & Vannoy, 2005; Fox et al., 2002) have supported such premise of “resource theory” by affirming that men may resort to violence against their intimate partners when there is an actual or perceived imbalance in the distribution of resources (such as education, income, occupational status, social respect and power) within the relationship, particularly in favour of women. However, (Atkinson et al., 2005) suggest that both “resource theory” and “relative resource theory” are inadequate to capture the contextual and cultural variables which influence women’s tolerance threshold for abuse. In addition, these theories fail to account for the social norms and gender roles varying across countries that determine all social relationships including marriage. It is argued that established social norms within a country influence the gender and power dynamics across various societal roles as well as shape the dynamics within marriages to determine the relationship between husbands and wives accordingly (see discussion in the previous section).

Meanwhile, “marital dependence theory” asserts that women with access to financial resources hold greater bargaining power within the domains of marriage and are in an advantageous position to leave an abusive relationship (Eggers del Campo & Steinert, 2022). The subsequent assertion is representative of the central notion of this theory: "at the core of a wife's dependence on her husband is her inferior earning power. As long as she is not able to get a job with pay and prestige at least equivalent to that of her husband, she must rely upon him to maintain her standard of living and social status" (Kinsley, 1977, p. 80). In line with the financial dependence of women, several scholars combine the responsibilities of children that reinforce women’s dependence on men (Gelles, 1976; Truninger, 1971). This theoretic supposition is particularly relevant to the current study as it is crucial to understand that despite women being employed with an independent income, women might still be heavily reliant on their husbands for social obligations and security of children that would possibly influence their tolerance of IPV and curtail their perceived ‘exit options’. A lot of attention has been dedicated to financially empowering women all over the world as a tool to augment their agency, enhance their bargaining power, and improve overall HH well-being. However, the effectiveness of these strategies in safeguarding individuals particularly women against IPV and other forms of domestic violence remains uncertain, especially in developing countries, where the contextual landscape differs significantly from developed nations that provide women with better legal protection including legally binding 'exit options'. This is evident from the contrasting results available in the existing studies that attempted to analyse the association between women’s financial independence and IPV. For instance, studies have shown that employment (Chin, 2012), financial autonomy (Bhattacharyya et al., 2011) and relative earnings of women to men (Aizer, 2010) significantly lower the prevalence of violence in certain countries. On the contrary, scholars have found positive (e.g., Ayodeji & Basirat, 2020; Bloch & Rao, 2002; Devries et al., 2010; Gracia & Merlo, 2016) or no effect of financial independence on IPV (Green et al., 2019; Lenze & Klasen, 2017) in other social settings.

In summary, the theoretical framework of this chapter is drawn upon the fundamentals of the above-mentioned multiple theories instead of a singular theory to capture the multifaceted pathways that could plausibly predict the intertwining association of women's employment and IPV. While the "intra-household bargaining model" suggests women's employment could reduce violence, the "male backlash theory" argues that it might increase violence by threatening male dominance. This contradiction is supported by the "resource theory" which identifies violence as an instrument to restore power balance presumably resulting in increased IPV for working women. Whilst "marital dependence theory" adds to the perplexity by stating that women's employment might not alleviate their vulnerability if their reliance on men for survival persists. Social norms and 'gendered ideologies' further complicate the link between women's employment and IPV, making it context specific. Therefore, the framework of this chapter (figure 4.1) attempts to explain the plausible impacts of women's employment on their exposure to IPV in the presence of various confounding and context-specific external factors i.e., social norms, traditions, community involvement, and legal rights protecting women against IPV. The subsequent framework (Figure 4.2) illustrates a synopsis of both quantitative and qualitative findings where women's employment is identified as a 'resource' (like previous chapters). which facilitates the process of enhancing women's agency and expanding their abilities to make certain 'choices', which is in accordance with the framework of Kabeer (2005a). Thereby, such improvement in agency is expected to increase their bargaining power within the HH domain; increase their mobility and exposure to public spheres; alter their perception towards domestic violence; enhance their social awareness and self-esteem; and/or augment their community involvement and social belongingness. All these pathways are estimated given the causation between the predictive and main outcome variables which could alter the existing power relations and gender dynamics in marriage thus indicative of a probable shift in women's exposure to IPV in either direction (i.e., increase or decrease as hypothesised by various theories).

Figure 4.1 represents a timeline for the evolution of women's empowerment in the context of Bangladesh that is in accordance with the empowerment framework discussed in the introductory chapter (chapter one) where both education and employment are identified as 'recourses'. It is therefore hypothesised that improved access to resources (i.e., education and employment) would result in women's improved bargaining power as discussed in previous chapters. Chapter four (4) extends the analysis of the previous chapter (which explores the effects of women's employment on their autonomy) and focuses on how employment might influence women's IPV experiences. There are various pathways (illustrated in Figure 4.2), activating women's access to employment, that might either prevent or stimulate the prevalence of IPV against women in a traditional and patriarchal social setting as indicated in previous studies. To investigate such paradoxical pathways, this paper delves into the nature of women's employment and its association with IPV by utilising primary data collected in 2020 from seven (7) divisions of Bangladesh through a mixed-method approach.

Figure 4.1 Impact of Women's Labour Force Participation on their IPV Exposer in Bangladesh



4.3 Methodology

The following sub-section of this paper outlines the methodology and rationale for the chosen research design, data tools, and analytical procedures. The study employs a mixed-method approach combining direct participant observation via in-depth interviews for qualitative investigation with quantitative analysis via survey questionnaires. This approach is crucial in grasping how employment impacts women's exposure to IPV, influenced by factors such as women's level of education, employment types, income level, demographic and socio-economic factors, place of residence, and inter-generational domestic violence. Moreover, in alignment with different scholars (e.g., Coker et al., 2011; Cools & Kotsadam, 2017; Schuler & Nazneen, 2018) advocating for a more comprehensive approach, our study adopted a mixed-method analysis to thoroughly investigate the link between women's employment and IPV. By integrating qualitative elements, such as thematic analysis of women's life stories, with quantitative findings, the research can thoroughly examine varied nuanced aspects. There might be subtle assumptions and interpretations in women's narratives of IPV that quantitative data can't entirely capture, but qualitative discussion bridges this gap. Observing women within their own HH environment offers a deeper insight into their social lives that dictate their gender relations and IPV experiences. The qualitative investigation aims to unveil underlying mechanisms that complement the quantitative findings.

4.3.1 Data Collection

The current paper utilises primary data gathered in two different phases. The mixed-method analysis is drawn from 40 in-depth semi-structured interviews (phase 1) and 320 surveys (phase 2) collected from full-time employed and married women in rural and urban areas of Bangladesh between January to April 2020. The current study initially intended to collect data from all eight (8) divisions of Bangladesh, however, the plan was hindered by the COVID-19 outbreak, leading to the cancellation of the final trip to the Barisal division. Nevertheless, the study completed both phases of data collection in the remaining seven (7) divisions. The selection of data collection sites across the seven divisions wasn't random; instead, it was based on the availability of local logistical and administrative support. Multiple survey sites were carefully chosen within each geographic location (village and town) to ensure a diverse and representative sample of employed women. Although rural areas were poorer compared to urban areas, the data collection sites do not stand out distinctively within the socio-economic contexts of Bangladesh. Furthermore, rural areas were somewhat more conservative in terms of social and gender norms yet subtle and similar patterns of gendered ideologies are visible in urban areas as well. However, it must also be cited that transcending changes in the socio-cultural environments are visible, especially in the rural areas where non-governmental organisations (NGOs) are more active via micro-finance operations, self-help groups, and various community engagement activities. Based on previous research (Naved et al., 2006; Naved & Persson, 2005) underscoring women's vulnerability to domestic violence in both rural and urban landscapes of

Bangladesh, this study collected comprehensive data from both social settings in the context of the same country profile.

All forty (40) in-depth semi-structured interviews with audio recordings (all except two women requested not to be recorded) were transcribed using NVivo for thematic analysis, identifying key themes related to women's employment and IPV. Survey data collection involved respondents completing questionnaires under the supervision of the primary author and volunteer surveyors. Both datasets were subjected to rigorous checks for consistency and completion of survey questions before analysis. The final number of observations for quantitative analysis (n=299) is lower than the total number of survey respondents (i.e., 320 observations) as a result of incomplete questionnaires and/or missing information. Afterwards, survey data was used for multivariate regression analysis to investigate the relationship between key variables i.e., women's employment and IPV. Even though both in-depth interviews and the survey covered a wide range of variables relating to women's autonomy (consistent with the BDHS questionnaire) such as HH decision-making, control over resources, distribution of HH responsibilities, and domestic violence (perpetuated by husbands and in-laws); the main analysis of this paper is restricted to variables that are directly relevant to women's employment and their IPV exposure (perpetuated by husbands only).

4.3.2 Questionnaire design

The development of the survey questionnaire involved a meticulous three-stage process. Initially, semi-structured interviews were conducted with a small group of married women employed in different employment sectors (i.e., different farm and off-farm employment) across various socio-economic backgrounds. The interview structure was deliberately unstructured to ensure a comprehensive understanding of the research context and allow the discussion to be rather open-ended. Following an extensive review of the literature and subsequent analysis of these interview transcripts, the questionnaire items were approved for phase two data collection. While maintaining coherence, these items were adjusted to align with the specific needs of the research setting. During the questionnaire design, primary emphasis was placed on seeking relevant information, maintaining a logical and coherent sequencing of data, avoiding and leading or conflicting questions. This approach was particularly adopted to simplify the questionnaire and to ensure its effectiveness. Following the initial drafting of the questionnaire, additional testing was deemed necessary before conducting the main survey. Boudreau et al. (2001) emphasise the importance of pre-testing research instruments to validate the chosen measurement. Therefore, a pre-test was conducted to assess the validity of the questionnaire (Gray et al., 2007; MacKenzie et al., 2011) and a pilot test was performed for content validity (Neuman, 2007).

Given the study context is based on a single country i.e., Bangladesh where Bengali serves as the official language, ensuring clarity, consistency, and understanding of both Bengali and English

versions of the survey questionnaire to avoid misinterpretation was paramount (Douglas & Craig, 2007). To achieve the same, this paper employed the back-translation process which is known for accurate translation processes (Harkness et al., 2004), minimisation of bias and identification of any significant error (Craig & Douglas, 2005; Douglas & Craig, 2007). The translation process involved several steps. Initially, an academic translated the survey questionnaire from English to Bengali, and the translated version was then 'back translated' into English which was verified by an expert. Subsequently, two qualified academics and an expert in field-level data collection in Bangladesh (proficient in both Bengali and English languages) attested and approved the translated questionnaires independently. Finally, the main author meticulously compared both versions to identify any disparity, mistranslation, or missing element. Notably, no significant differences were found between the two versions of the survey questionnaire with minor adjustments based upon expert opinions. In the end, the translated survey questionnaire (in Bengali) was used for a pre-testing round to assess its coverage, clarity, and comprehensibility.

4.3.2.1 Phase 1: In-depth Interviews

For interview sessions, the primary researcher visited each respondent in their home or workplace and made sure to explain the research procedure, nature of the study, and ethical grounds including anonymity before asking any question. The researcher has tried to build a connection with interviewees before asking the questions so that they feel comfortable discussing sensitive issues like domestic violence and IPV. The interviewer tried to observe women within their comfort zones, paying close attention to changes in their body language when asked any sensitive question. The aim was to understand how they responded when feeling uncomfortable, as subtle cues were observed indicating moments when respondents sought to avoid giving direct answers. Instead of putting women on the spot for a definite answer, the interviewer tried to allow space which helped to create a safe environment and women later opened up about their trauma and abuse. The qualitative component of this study was particularly designed to illustrate and interpret the underlying social norms and gendered roles that affect women's exposure to IPV in relation to their employment. Therefore, the eligibility criteria for the interviews were as follows: women must be married and employed (full-time) for at least five years. Most of the rural interviewees were under 18 when they got married and unemployed in the beginning who later joined the employment sector due to financial hardship and/or other challenging circumstances. Hence, the gradual transformation of their IPV experience because of their employment could be reflected in their life history narratives. Women were asked various questions relating to their employment and domestic violence experience including IPV over the years. A voice recording device was used for each interview with consent from the respondents (except for two who requested their sessions to not be recorded). The duration of each interview was a minimum of forty (40) minutes to a maximum of ninety (90) minutes depending on individual circumstances. Often, impromptu questions were added to the conversation based on any specific statement made by a respondent which allowed the individual

sessions to be more spontaneous than scripted. However, prompts were given to keep the focus of discussion reined to specific points such as what sort of changes occur in the marital dynamics including exposure to violence as a result of their participation in income generation activities (IGAs); how these changes were received by their husbands and extended family members; their perception towards domestic violence, intergenerational experience of violence, and any alteration in their IPV experiences over time (see Appendix B.1).

4.3.2.2 Phase 2: Survey Round

To develop the survey questionnaire and to explore the relevance of variables used in the empirical model, outcomes from the semi-structured interview in phase one have been exploited. Based on the findings from phase one, the survey questionnaire has been modified and edited for appropriateness and relevance to the survey population. As recommended by Hardesty and Bearden (2004) for enhancing reliability and establishing content validity, three field experts and two academics evaluated the items to gauge their representativeness of the pertinent construct. With the study's aim to create an exhaustive item list, experts were also invited to propose any additional items they felt were absent from the scale. After incorporating feedback from experts, the questionnaire was refined by reducing the total number of items from 67 to 60 including basic demographic questions. This revised questionnaire underwent pilot testing. There is a debate on the optimal sample size for pilot studies with Kolb (2008) and Saunders et al. (2012) suggesting a minimum of 10 participants while Malhotra and Birks (2007) propose a minimum of 10 to 30 participants. However, the current paper managed to include a total of 13 participants for this pilot testing stage where participants demonstrated a reasonable understanding of survey items and managed to complete the questionnaire within the stipulated timeframe. However, subsequent exploratory factor analysis of pilot testing identified a couple of minor issues and prompted minor adjustments in terms of both content and length. Accordingly, a few challenging items were removed from the final survey questionnaire which comprised a total of 54 items (see Appendix B.2). A series of inclusive questions concerning various aspects of women's lives including their demographic and HH characteristics, educational background, employment history, power relations within the HH domain, and most importantly their exposure to domestic violence (both IPV and by extended family members) including inter-generational experience of domestic violence has been recorded. Since women's vulnerability towards domestic violence can be extremely contextual, the survey questionnaire has been carefully drafted and adopted from previous studies in similar contexts such as Hashemi et al. (1996) and Garikipati (2008). The survey sample consists of working women from various employment sectors in Bangladesh where urban respondents were predominantly employed in readymade garment (RMG) factories, education, banking, and private sectors while rural respondents were mostly engaged in various agricultural and off-farm income generation activities (IGAs), small and medium enterprises (SMEs), and healthcare services etc.

4.3.3 Qualitative Study: Thematic Analysis

The qualitative component of this study aims to settle the discrepant empirical findings by detailing women's narratives to analyse the association between their employment and IPV experiences in various social settings. As mentioned earlier, the recorded interviews and field notes were first transcribed using NVivo which facilitated the creation of various nodes for a detailed thematic analysis. The aim was to uncover latent themes about women's employment and IPV, allowing for an in-depth discussion of the key findings. The study recognises the fact that qualitative research approaches can be extremely complex, diverse, and nuanced as indicated by Holloway and Todres (2003). The core findings of the qualitative investigation have been synthesised following a structured thematic analysis to understand how employment influenced women's exposure to IPV over time. The primary aim of this analysis is to capture the hypothesised transition of women's IPV experience stimulated by their employment. It is assumed that by analysing their narratives, this study would be able to identify patterns between the main predictor and outcome variable to confirm a causal link if there is any. The preliminary coding method significantly influenced the coding phases, mitigating the possibility of premature coding disclosure. Line-by-line coding entailed the selective highlighting of sentences or brief paragraphs, followed by the assignment of open-ended codes. According to Charmaz (2008), this method advocates for a more reliable analysis while reducing the risk of personal bias influencing the coding process. Conceptual themes were extracted from pivotal data events (Corbin & Strauss, 2015) by meticulously reviewing transcripts, and assigning open codes to each segment. Additionally, descriptive coding was employed to delve into the specifics of interview passages and to simultaneously utilise participant statements to understand not only what they said but also the subtle cues beneath their unsaid words via body language. Then, themes (see Appendix B.3) that relate women's employment to their experience of domestic violence have been separated and further segregated into IPV (violence perpetrated by husbands only) from domestic violence perpetrated by extended family members (in-laws).

4.3.4 Empirical Model for Quantitative Analysis

To estimate the contributing effects of women's full-time employment on their IPV exposure, our main empirical specification uses a multivariate regression equation as follows:

$$Y_i = \beta_0 + \delta_i x + \alpha_i z + X_i + \mu_i \quad \ldots\ldots\ldots (1)$$

Where, Y_i is defined as the dependent variable which is women's exposure to domestic violence (IPV) in the last twelve months. We want to estimate the coefficient δ_i which indicated the marginal effect of women's full-time employment i.e., independent variable (denoted as x).

4.3.4.1 Outcome Variable

The outcome variable of interest is women's exposure to IPV. In this study, the focus is on three types of IPV exposure i.e., physical, verbal, and psychological IPV perpetrated by their respective husbands.

In addition to measuring these three types of IPV separately, a principal component analysis (PCA) index has been constructed which represents all three types of IPV exposure in one composite index. This study uses PCA as an extraction method, which is a commonly used statistical instrument to create an index from a group of variables that are similar in the information that they provide without having to choose one variable among many variables that might cause multicollinearity. All types of IPV exposure were coded as one (1) if the husband has perpetrated violence in the last 12 months and zero (0) otherwise. Sampling adequacy and reliability scores of the index show an overall KMO value of 0.664, which is higher than the cut-off points of 0.60 (Tabachnick & Fidell, 2018, p. 661). Moreover, KMO values for each IPV exposure variable range between 0.629 to 0.789, representing the sampling adequacy (see Appendix B.4). Additionally, a Cronbach's alpha (α) value of 0.766 shows an internally consistent and reliable index (Hair et al., 2013, p. 123).

4.3.4.1 Predictor Variable

The primary predictive variable is women's full-time employment. Additionally, the study incorporates their income as a continuous variable, along with a dummy variable representing women engaged in self-employment through various home-based activities.

4.3.4.2 Control Variables

This study included women's education levels classified into completed primary, secondary, higher secondary and graduate levels against a reference of no formal education. In addition, this study includes a set of controls including their age, income, employment type (i.e., self-employed), place of residence, husband's age, and exposure to inter-generational violence. Finally, women's level of income has been used as a proxy for HH wealth and the low-income group of women has been used as an additional control (dummy variable) for subsample analysis. Therefore, it can be asserted that a wide range of controls have been incorporated into the model to account for endogeneity such as omitted variable bias. For instance, past research has indicated that women's age is a significant predictor of their IPV exposure based on previous findings that marrying off young girls at an early age can significantly increase the risk of exposure to domestic violence (Schuler & Rottach, 2010). The researcher is aware that all interpretations from the quantitative analysis might not necessarily be causal, but rather more descriptive in nature. However, it is expected that the statistical inferences would be supplemented with the qualitative findings and corroborate the hypothesised association between women's employment and IPV. It is also understood that there are numerous possibilities for endogeneity due to the complex nature of women's employment.

4.4 Data Analysis

4.4.1 Descriptive Characteristics of the Interview Respondents

The study sample includes diverse groups of women employed in various occupational sectors across multiple income brackets. From the initial analysis, it has been identified that significant disparities

remain in socio-economic traits between rural and urban participants. Within the urban cohort, women with a graduate level of education typically hold stable employment with fixed monthly income, falling within the middle-income group. Conversely, the other subset of urban women belongs to the poorest HHs, with minimal to no education. This subgroup primarily consists of disadvantaged women who migrated from rural to urban areas in pursuit of employment opportunities due to financial hardship and poverty. These women mainly work in the RMG sector or other menial jobs such as housemaids, cleaners, or construction workers. In particular, women employed in the RMG sector face limited opportunities for career advancement and often endure prolonged hours in unfavourable working conditions while receiving minimal wages. Contrarily, middle-class educated women living in urban areas pursue employment as a natural progression of their completion of higher education. Most women in this subgroup are engaged in professions such as education or the private sector, encompassing roles in banking, NGOs, and multinational corporations. These positions offer improved salaries and better working conditions, which may include pension plans and additional benefits. These factors might potentially enhance their bargaining power and provide alternative choices ('exit options') in adverse situations such as marital abuse.

Alternatively, most of the rural women who were interviewed belong to poorer HHs (except for one) who had to seek employment opportunities primarily due to challenging circumstances and dire conditions. This pattern mirrors the findings from a study by Schuler and Rottach (2010), where women took charge of their situations in response to their husband's failure to provide for the family. These situations usually included either husband being physically ill, abandoning their wives for extra-marital relationships and second marriages or simply refusing to work. Even though rural women in Bangladesh typically refrained from going out in public domains, the local communities did not criticise these vulnerable women for defying the 'purdah' norm (religious practice of seclusion) by working outside. This leniency was particularly granted in consideration of their vulnerable and dire circumstances. In general, rural women are expected to avoid public spaces unless accompanied by their husbands or any other male family member as it is against traditional customs and religious beliefs. From the interview, it is documented that this practice of secluding women within the HH domain is more prevalent in rural areas compared to urban HHs. Nevertheless, indirect constraints are prevalent on urban women's mobility as well which are rather subtle. For instance, urban women are more visible in public spheres like workplaces, schools, banks, and grocery stores during the daytime while they are usually refrained from going out in the evening or meeting friends outside of work.

Furthermore, a substantial portion of rural women, with only a few exceptions, have limited to no formal education. They predominantly engage in wage-based agricultural endeavours, participate in income-generating activities linked to microcredit, work in and other SMEs. These observed employment patterns align with earlier research findings (Holland & Rammohan, 2019; Schuler &

Rottach, 2010) wherein rural women frequently partake in stereotypical activities such as agriculture and poultry based IGAs. Furthermore, in line with the preceding evidence by Schuler and Rottach (2010), it is documented that women in rural areas are married off at a very young age as their guardians want to guarantee their financial security. Given the fact that these rural women had less education compared to urban women and married off at a young age, they have few opportunities regarding employment diversification. As a result, rural women are mostly involved in various home-based farm and off-farm activities often associated with unfavourable work attributes such as arduous labour, monotonous work routine, low wages, and no bargaining power concerning working conditions. Additionally, these roles lack a fixed work schedule, resulting in a deficiency of work-life balance, making it less desirable compared to other forms of wage-based employment as illustrated in prior studies (Da Corta & Venkateshwarlu, 1999; Garikipati, 2008).

Findings from interviews show that rural women who are members of microcredit programmes, and operating home-based income-generating activities, contribute to HH expenses. Despite being somewhat insignificant, this contribution has granted them a sense of self-reliance and increased respect from their husbands. However, they still rely on their husbands for everyday expenses, which can be perceived as financial dependence, potentially limiting their 'exit options' in case of IPV prevalence. Likewise, Hashemi et al. (1996) illustrate that women engaged in microcredit programmes relied on their husbands' earnings for daily essentials and sometimes for paying off weekly loan instalments. This dependency stemmed from the fact that their income generation activities do not yield any consistent weekly income, instead are conditional upon profit-based earnings. However, interview findings also highlight a significant transformation among these women who expressed a profound sense of achievement for being able to support their children's education and other HH expenses. Other than financial autonomy, these women ‘‘learned to talk” to men outside their own families for the first time through their involvement in microfinance programmes which gave them a sense of self-reliance and confidence. In addition, most of these rural women have reported a notable reduction in their exposure to IPV over time and an increased authority in HH decision-making simultaneous to their employment and involvement in community-based activities.

Recognising the variation among various sub-groups of working women is crucial to comprehend the multi-faceted and varied relationship between women's employment and IPV. Understanding the heterogeneity among these sub-groups is key in assessing how their employment trajectory influenced individual experiences of IPV. For example, the threshold for tolerating domestic violence and perceived 'exit options' significantly differ among educated and high-income women versus rural women with no education. The former group might have a different perception than the latter because of their financial sufficiency while the latter might be forced to endure abuse due to their financial dependence for survival. Without grasping these underlying variations and nuanced cues, comprehending the complexity of women's exposure to IPV becomes increasingly

challenging. Therefore, making any sweeping generalisation about the impacts of women's employment on their IPV exposure based on only observable and quantifiable indicators might result in biased estimates. With this in consideration, the current study extends its ordinary least squares (OLS) estimation by delving into sub-sample analysis to capture the diversity among various sub-groups of women. In addition, this study integrates qualitative findings and direct quotes from the interviews into the quantitative analysis and results discussion to complement statistical inferences and augment key arguments.

4.4.2 Descriptive Characteristics of the Survey Respondents

As discussed in the methodology section earlier, the main objective of qualitative investigation in this paper is to tease out the underlying mechanisms observed within the quantitative analysis. Therefore, the individual narratives and quotes will be merged into the discussion of empirical findings derived from the multivariate OLS estimation. For this purpose, data from the survey round has been utilised where the number of observations has been deduced to be 299 after correcting for missing values and incomplete survey questions. The author is aware that the quantitative analysis might not be necessarily causal, rather more descriptive in nature, but it is hoped that the qualitative findings would supplement and corroborate the hypothesised association between women's employment and IPV. This paper also acknowledges the possibility of endogeneity given the nature of women's employment which could be determined and affected by various contextual variables. Given that, several control variables have been exploited to run the OLS regression analysis and to interpret the findings. In the beginning, a descriptive statistic for key variables of interest is provided in Table 4.1 followed by a descriptive analysis of various employment related variables.

Table 4.1: Descriptive Statistics of the Survey Dataset (N=299)

Variable	Mean	SD	Min	Max
Age Group	3.699	0.953	1	6
HH Size	4.271	1.116	2	6
Rural	0.375	0.485	0	1
Muslim	0.823	0.383	0	1
Number of Child	2.074	1.014	1	4
Husband Age Group	4.137	2.895	1	8
Age of HH Head	46.12	12.14	26	80
NGO membership	0.438	0.497	0	1

Table 4.1 presents a brief descriptive statistic of the key variables of interest from the survey sample with a total observation of 299. Nearly 37.5% of the survey sample resides in the rural areas of Bangladesh with 82.27% of the survey sample following the religion of Islam. Approximately 43.85 of the total respondents are members of NGOs and/or microcredit organisations. The average number of children is around 2 per woman with an HH size of around 4 people per family indicative of nuclear families as opposed to traditional joint families with extended family members and in-laws. In addition to this, different tables are presented below illustrating various descriptive analyses

of working women based on their employment sector, salary time, income range and frequency distribution of women's exposure to IPV (from Table 4.2 to 4.5).

Table 4.2: Descriptive Analysis of Women's Employment Sector

Women's Employment Sector	Frequency	Percentage	Cumulative
1. Agri	36	12.04	12.04
2. Production	10	3.340	15.38
3. SME	31	10.37	25.75
4. Microcredit IGA	33	11.04	36.79
5. Official Job	180	60.20	96.99
6. Others	9	3.010	100.0
Total	**299**	**100.0**	**100.0**

Table 4.2 demonstrates that the highest number of women respondents (180) are employed in various office-based occupations including private sector jobs, banking, NGO, education, healthcare etc. Then, the second highest number of women respondents (36) are employed in the agriculture sector followed by microcredit-based income generation activities (33) and small and medium enterprises (31). In addition, we have working women in our sample who are employed in ready-made garments (RMG) and other manufacturing-based jobs (10). Therefore, it can be assumed there is sufficient variation within the survey sample despite being a relatively small dataset.

Table 4.3: Descriptive Analysis of Women's Salary Types

Women's Salary Type	Frequency	Percentage	Cumulative Percentage
1. Monthly	231	77.78	77.78
2. Daily Wage	21	7.07	84.85
3. Profit sharing	4	1.35	86.20
4. Whole profit ownership	39	13.13	99.33
5. Others	2	0.67	100.0
Total	**297**	**100.0**	**100.0**

Table 4.3 shows that most of the women from the survey sample are recipients of monthly salary (231), which can be classified as the most stable source of income. There are 39 working women whose income is generated from profit-based employment activities including microcredit and SMEs. In the sample, there are 21 women whose income relies on daily wages, indicating that their earnings may vary based on the availability of work and seasonal variation.

Table 4.4: Descriptive Analysis of Women's Salary Range

Salary range	Frequency	Percentage	Cumulative Percentage
High-income group	78	26.71	26.71
Medium Income group	35	11.99	38.70
Low-income group	179	61.30	100.0
Total	**292**	**100.0**	**100.0**

Table 4.4 illustrates the segmentation of the survey sample into three income groups. The majority of the respondents, totalling 179 women, belong to the low-income group, earning below

BDT 20,000. Additionally, there are 35 women belonging to the medium-income bracket, earning between BDT 21,000 and 30,000. Finally, 78 working women belong to the high-income group, earning BDT 31,000 and above. Notably, there are 7 women in the sample who chose not to disclose their income range.

Table 4.5: Frequency distribution of women's IPV exposure (N=299)

Variable	Frequency	Percentage
DV Exposure: Husband (entirety of marriage)	165	55.18
DV Exposure: Husband (physical, last 12 months)	56	18.73
DV Exposure Husband (verbal, last 12 months)	143	47.83
DV Exposure Husband (psychological last 12 months)	135	45.15
DV Exposure In-laws (entirety of marriage)	142	47.49
DV Exposure In-laws (physical, last 12 months)	35	11.71
DV Exposure In-laws (verbal, last 12 months)	93	31.10
DV Exposure In-laws (psychological last 12 months)	90	30.10

Table 4.5 presents the frequency distribution of women's IPV exposure. It is evident that the prevalence of IPV (physical) declined over the years concurrently with women's engagement in paid employment within the surveyed population. As depicted, 18.73% of women reported experiencing physical violence by their husbands (intimate partners) within the last 12 months, while 55.18% reported experiencing such violence throughout the entirety of their marriage. Additionally, the likelihood of women's exposure to IPV in the last 12 months varies across different types of IPV perpetration. For example, 18.73% of women reported an incidence of physical violence (by their husbands) during this period, while 47.83% reported verbal abuse, and 45.15% reported psychological abuse during the same time period. This variance suggests a notable decrease in women's experiences of physical violence over time, potentially indicating a shift where physical abuse has been substituted by other forms of violence, such as verbal and psychological abuse.

4.4.3 Empirical Findings

Before analysing the statistical inferences based on the following quantitative findings, it should be noted that OLS estimations do not account for endogeneity. Therefore, these findings should be taken into consideration more cautiously owing to plausible endogeneity issues relating to women's employment as identified in previous studies like Villarreal (2007). Table 4.6 represents the estimates of a multivariate OLS regression analysis where the main outcome variable is women's exposure to IPV in the past twelve months and the main predictor variable is their full-time employment (a dummy variable with 1=yes, and zero otherwise) in addition to income (continuous variable) and a dummy variable for being self-employed. Furthermore, control variables such as women's level of education (completed primary, secondary, higher secondary, and graduate), age, place of residence (rural vs urban), religion, husband's age, and exposure to inter-generational violence are reported. Column (i) of Table 4.6 represents the estimation of multivariate OLS regression for the PCA index that constitutes all three kinds of women's IPV experience perpetuated

by their husbands in the last twelve months (i.e., physical, verbal, and psychological). Whereas Column (ii) represents the estimation of multivariate OLS regression for women's exposure to only physical IPV in the last twelve months. Similarly, Columns (iii) and (iv) of Table 4.6 represent women's exposure to verbal and psychological IPV respectively for the same time period.

Table 4.6: Effects of Women's Employment on IPV Exposure

VARIABLES	(i) IPV Exposure	(ii) Physical IPV	(iii) Verbal IPV	(iv) Psychological IPV
Employed (full-time)	-0.0506	-0.0605	-0.0266	0.0515
	(0.329)	(0.0932)	(0.116)	(0.119)
Income	-0.124***	-0.0283**	-0.0379**	-0.0335*
	(0.0471)	(0.0134)	(0.0166)	(0.0170)
Self-employed	0.663**	0.154	0.169	0.209*
	(0.333)	(0.0944)	(0.117)	(0.120)
Age	-0.347**	-0.0892**	-0.0847	-0.104*
	(0.156)	(0.0442)	(0.0550)	(0.0564)
Graduate	-0.546	-0.193	-0.147	-0.0910
	(0.428)	(0.121)	(0.151)	(0.155)
Completed Higher Secondary	-0.799*	-0.107	-0.295*	-0.249
	(0.434)	(0.123)	(0.153)	(0.157)
Completed Secondary	-1.132**	-0.289**	-0.262*	-0.355**
	(0.449)	(0.127)	(0.158)	(0.162)
Completed Primary	-0.112	-0.112	0.102	-0.0692
	(0.392)	(0.111)	(0.138)	(0.142)
Rural	-0.378	-0.0683	-0.0857	-0.151*
	(0.247)	(0.0701)	(0.0872)	(0.0894)
Husband's age	0.0243*	0.00482	0.00763	0.00718
	(0.0140)	(0.00398)	(0.00495)	(0.00507)
Intergenerational DV experience	0.376*	0.0165	0.134*	0.160**
	(0.209)	(0.0592)	(0.0737)	(0.0756)
Constant	1.068	0.630***	0.678**	0.645**
	(0.792)	(0.225)	(0.279)	(0.286)
Observations	223	223	223	223
R-squared	0.181	0.127	0.173	0.125

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The findings from Table 4.6 indicate that the relationship between women's employment and their exposure to IPV is not straightforward. The estimated coefficients for women's full-time employment are negative for the composite index (PCA index) of IPV exposure, physical and verbal IPV exposures separately (except for psychological IPV) in the last twelve months, but none of these are statistically significant. Therefore, any significant effect of women's full-time employment on their IPV exposure cannot be validated. However, women's income exerts a statistically significant impact on their IPV exposure. Specifically, the composite IPV index (encompassing all three types of IPV in the last 12 months) decreases by 12.4% with increased income at the 1% level of significance (Column i). This finding is supported by qualitative observations where multiple women associated

a reduction in IPV exposure with their ability to earn an independent income. This independence allowed them to share HH's financial responsibilities, thereby reducing the financial burden and stress from their husbands as the sole earner of the family. They also mentioned how their husbands started to slowly respect their opinions and acknowledge their financial contributions over time which contributed to a gradual decline in IPV prevalence. According to a rural woman (Respondent 21, Age: 36) working in the poultry business:

> *"My husband used to get angry if I ever questioned how he spends his income but now that I also earn and pay for our food and our children's daily expenses, he asks me what I think before making a decision! He would discuss before making any family decisions with me and recently we got our daughter married. We made all the decisions together. He treats me with more respect now and listens to my advice instead of getting furious and violent as he used to be after our marriage. Sometimes he would still not listen and value my suggestion, but he would be quiet instead of verbally abusing me like before".*

Another rural woman (Respondent 25, Age: 35) has mentioned that,

> *"I was beaten so much after getting married that I imagine no woman has ever been beaten like that. I had no option but to suffer but things started to change when I opened my own shop in the neighbourhood a couple of years ago when my husband got sick. As the business was doing well, I continued to work after my husband recovered. He realised that my income could help us with HH expenses, and we could provide better education for our children. Now my husband doesn't do a single thing without consulting me and he never raises his hand on me."*

Therefore, it can be inferred that there has been a gradual shift in men's attitudes toward domestic violence due to women's financial contribution towards HH expenses. Earlier, men used to entirely disregard their wives' opinions whereas now they are allowing women to share their opinions and participate in the HH decision-making process. It is also evident that self-employed women are more susceptible to IPV exposure as the coefficient for the composite index of IPV exposure increases by 66.3% at the 5% level of significance. The statistical significance is driven by the odds of self-employed women being exposed to psychological abuse perpetrated by their husbands (intimate partners). The statistically significant positive coefficient indicates a higher probability of self-employed women being more exposed to IPV than the rest of the women. It should be noted that the self-employed women in this study engage in various home-based income-generating activities, both agricultural and non-agricultural. These women have limited exposure to the public domain, restricted mobility, and lack access to formal banking services, which limits their control over income and financial resources. Generally, HH finances are managed by their husbands and other male members. Additionally, these self-employed women do not have a fixed monthly income and their earnings are based on profit which makes them reliant on their husbands for day-to-day expenses. This finding reasonably aligns with the sentiment expressed by one of the self-employed women (Respondent 29, Age: 30):

> *"I have a small poultry business. I do not have a bank account or individual savings. The people from our local NGO come to my house for loan repayment, but my husband gets angry if I talk to male NGO staff when he is not in the house, one time he starts cursing in front of them. My husband goes to the bank if needed and he handles all the money issues. He doesn't want me to go out or talk to other men. I am happy with this arrangement as at least; I am allowed to work and pay for little things now. It's better than asking for every single penny from your husband".*

Table 4.6 also reports the effects of other socioeconomic variables, including women's education, age, place of residence, intergenerational domestic violence experience, etc. Women's age has a statistically significant and negative association with IPV exposure in the last 12 months across all three types of violence perpetrated by husbands, similar to the previous study findings by Bates et al. (2004). It is hypothesised that women tend to gain more authority and control within the household domain as they get older. Women's education has a statistically significant negative association with their IPV exposure, which is expected. As women gain more education, they are presumed to become more confident and self-aware of their legal rights, as well as having an increased probability of securing better jobs. It is evident that working women who have completed a minimum of secondary or higher secondary level education are less likely to be exposed to IPV. This is in line with previous findings where women's higher level of education expectedly reduces their exposure to IPV (Koenig et al., 2003; Rapp et al., 2012). The results shown in Table 4.6 demonstrate a rather direct correlation between women's education and their IPV exposure compared to their full-time employment.

The following statement of an interviewee is reflective of the fact that women have now reached a point where they believe that their individual income generating capacity makes an allowance for perceived "exit options" that they couldn't think of before their employment. Some women have developed a sense of self-reliance where they now believe that it is possible to leave an abusive marriage on account of IPV. An RMG worker (Respondent 6, Age: 28) said,

> *"No one needs to tolerate their husband's beating and abuse in silence anymore as women nowadays have many options other than going back to their father's house. I came here from Dinajpur after one year of my marriage and many of my friends came from distant places. We all know that anyone can survive by working in this city and can manage a roof and food for themselves. No one cares if a woman is living alone in this city like people back in my village who cannot think of women living alone without a husband*".

This statement symbolises the shifting social norms where a woman can now dare to leave her abusive husband and support herself through work, which is supported by Schuler et al. (2013). The presence of this 'exit option' appears to have empowered women with a confidence they hadn't possessed before. Women can now imagine an independent life, reflective of a shift in social norms where a woman leaving an abusive spouse to sustain herself through work is now socially embraced.

However, certain aspects of women's employment seem to decrease the likelihood of being exposed to IPV for working women while other aspects still function as a triggering factor for their husbands. For instance, a reduction in HH poverty due to women's employment might alleviate their risk of being constantly exposed to IPV while increased mobility and exposure in public spaces might exacerbate the risk of IPV for many women. From the interview, it is evident that rural women continue to face restrictions on making public appearances without the presence of a male family member. One of the rural interviewees with two children (Respondent 18, Age: 25). said,

> "*I am allowed to visit my parents only once a year and even then, my husband travels with me and my children. I hardly go anywhere as my husband doesn't like it. He used to get violent if he ever saw me talking to anyone outside the family, especially men. If I go to the local marketplace then there will be people who know us and would want to talk to me, so my husband goes with me and asks me to wear a burka. I work from home so there is not much need to go out and honestly, I don't want to make my husband angry as then he would stop me from working and I value my financial independence more than going out alone".*

Although urban women are more visible in public domains compared to rural women, there are still salient restrictions on their freedom of movement. Unlike the rural women who are secluded within the HH domain, urban women are often granted restricted mobility. Most women respondents, irrespective of their geographic location (urban or rural), commented that they abide by restrictions on mobility and public exposure imposed by their husbands only to avoid marital conflicts and abuse (details in section 4.4.3.2). For instance, a development worker in Dhaka (Respondent 15, Age: 36) mentions that

> *"I am not in contact with my university friends anymore, especially male friends. My husband does not like it and my life mostly revolves around my family, children, and HH responsibilities. I used to love going out with my friends to movies before marriage, but my husband doesn't like it. So, I stopped doing that. I do not want him to be angry and verbally abuse me in front of my daughter as she is growing".*

4.4.4 Subsample Analysis

Several subsample analyses have been conducted to capture the heterogeneity of women's IPV experiences across various sub-groups of women based on their level of education, occupational sector, and place of residence. During the interviews, it has been observed that the women's IPV experiences significantly differ among various socio-economic groups. Generally, marginalised women from the poorest segment of society have been more exposed to IPV after their marriage however frequency of IPV prevalence declined substantially among these women along with their employment over the years. Considering the association between poverty and IPV, the study wanted to investigate whether women's employment had any significant effect on their IPV experiences across different income groups of women. For this reason, a dummy variable is created for women belonging to the low-income group and reported in all subsequent subsample analyses. It should be noted that the poorest segments of women not only reside in the rural areas but also the urban slums.

Table 4.7: Women's IPV Exposure across Rural vs. Urban Sub-sample

Variables	(Women living in rural areas) **IPV Exposure 12 months**	(Women living in metro city) **IPV Exposure 12 months**
Employed (full-time)	-0.937***	0.208
	(0.341)	(0.342)
Low-income group	0.319	1.278**
	(0.810)	(0.550)
Constant	-0.194	-3.231*
	(1.541)	(1.829)
Observations	80	79
R-squared	0.444	0.335

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4.7 indicates that when working women are divided into two subgroups (living in rural vs urban areas), the estimated marginal effect of women's full-time employment in reducing the likelihood of IPV exposure is statistically significant at a 1% level for rural women. This suggests that rural women engaged in full-time employment face a lower risk of IPV. One of the reasons for such a finding could be that many people now see women's empowerment as something women should aim for, praising them for helping with HH expenses and sharing the burden with their husbands. Therefore, women's employment is not seen as a threat to established gender norms as before (Schuler & Nazneen, 2018). Another reason could be because community intervention is more active in rural areas to safeguard women from domestic violence compared to urban areas, which is consistence with qualitative findings. Rural women are more likely to receive support when seeking help from their communities compared to urban women as community involvement is scarce in urban areas. In addition, rural communities have been actively engaged in various government and non-government campaigns (run by NGOs and other local organisations) promoting women's safety and rights against domestic violence. Therefore, rural communities are now more aware of women's rights and IPV is no longer tolerated. For instance, the following interviewee (Respondent 28, Age: 43) used various resources to prevent IPV, including involvement in community networks, legal awareness, and increased support from NGOs, which have become increasingly crucial in fostering a supportive environment within the rural communities:

> *"My husband used to be verbally abusive, and I used to tolerate it in the beginning. Sometimes he would even hit me if he didn't like the food I cooked or I didn't obey him. After five years of our marriage, I took a small loan from the local NGO and completed a tailoring course. I now own a tailor shop and work with two other employees. I am not a burden on him anymore, I can earn my own bread. He knows that I will not tolerate his bad behaviour anymore and the local NGO staff explained to us that we can go to the police to complain. Every woman in our rural community is now aware of the consequences of domestic violence and we help each other out if someone is in trouble"*.

In addition, it is evident that women who work and reside in urban areas, particularly those from lower-income brackets, face a higher risk of exposure to IPV. This finding is consistent with the qualitative narrative where women from lower-income groups reported a higher rate of IPV and discussed how their husbands resorted to violence primarily due to financial stress and poverty. According to an interviewee from the urban setting (Respondent 7, Age: 40), poverty is one of the most significant contributors to domestic violence:

> *"Poverty is the main reason why women in our village are forced to tolerate anything, they are constantly reminded that they are a burden on their parents before marriage and husbands after marriage. I have been always told that women should live their life according to their husband's will because men are the breadwinners. I have been beaten so much in thirty years of my married life and for simple things like maybe the rice was overcooked or I forgot to get the clothes from outside in the evening. It didn't matter, I was to be always blamed when he was angry. I would always stay quiet as my husband had to feed a family of nine members including my in-laws and it is not easy when you are very poor. My husband used to be always in a bad mood not ready to hear anything and my job was to serve him and his family. A few years back, I started making paper bags for local vendors in the neighbourhood. In the beginning, no one would support me, and I had to complete all the HH chores before working for my business. But slowly, my husband realised that my income helps him with HH expenses and together we saved enough for a small land. He discusses money related issues with me now and although he makes the final decision, I still have a voice in that."*

Nevertheless, the contribution of employment and income contribution to household (HH) dynamics appears to mitigate the prevalence of IPV among low-income households. The narratives from the respondents unveil that women's financial roles have expanded and become essential for many husbands to maintain a certain lifestyle. Beyond individual earnings, employed women engage in collaborative efforts with their husbands, advising, fostering income-generating ventures, and overseeing family resources. These women highlighted various ways their earnings were used, from supporting their children's education to acquiring land or enhancing their homes, showcasing the breadth of their financial influence. The following statement from a rural woman (Respondent 20, Age: 35) is a testament to the same argument.

> *"I started to pay for my kids' school, and I gave my husband money to buy a small land. My husband now understands that my income is important, and I can contribute to HH expenses and share his burden, so he values my opinions now. It's been twenty years of our marriage, and he would still get angry sometimes but l he wouldn't hit me anymore".*

However, it is interesting to note that the mindset of women belonging to lower-income groups with no education is significantly different from others. Certain social and gender norms, like women's perceptions of attitudes regarding gender roles and IPV within husbands and extended families, are closely tied to IPV incidents or even serve as a justification for violence. For instance, while rural communities predominantly view violence against women as unacceptable, there's a

willingness to justify it for disciplinary reasons on account of religious and cultural values. The following depiction of women's role in marriage, spliced from an interviewee (Respondent 23, Age: 60), is representative of social perception towards domestic violence and cultural norms in Bangladesh.

> *"You only get married once and your husband is your guardian, he has the right to discipline you. You are not supposed to argue with your husband, and he can hit you if you don't obey him. You can never go back to your parental house as you are supposed to live with your husband till your death"*.

Table 4.8: Subsample Analysis of Women's IPV Exposure across Employment Sectors

Variables	**(Agri sector)** IPV Exposure 12 months	**(SME & Microcredit)** IPV Exposure 12 months	**(Official job)** IPV Exposure 12 months
Employed (full-time)	0.0930	-0.988*	0.484*
	(0.623)	(0.557)	(0.267)
Constant	-1.876	2.395	0.958
	(1.533)	(2.313)	(1.739)
Observations	27	48	136
R-squared	0.686	0.400	0.133

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4.8 presents that among various sub-groups of women segregated by employment sector, the estimated marginal effect of women's full-time employment is statistically significant in reducing their IPV exposure for those who are employed in microcredit and SME sectors. A major shift in the rural landscape in Bangladesh came along with the initiation of the microcredit sector which transfigured the socio-economic environment, rural culture, and gendered norms. There can be debate about microcredit and its efficacy in alleviating poverty and empowering women, but it has provided rural women from the poorest segments of society with access to finances for the first time and created large-scale employment opportunities throughout Bangladesh. A key element of the microcredit programmes involves the mandatory 'weekly group meeting,' which encourages rural women to step out of HH seclusion and grants them public exposure for the first time in life. Being part of a microcredit group is not only important to establishing their income generation activities but also for a sense of community belongingness. Furthermore, active participation in group-based microcredit programmes fosters mutual respect and enhances community awareness about domestic violence against women. From different interviews, it is evident that increasing social awareness within rural communities because of women's NGO involvement has functioned as a preventive factor against IPV. Rural women are now more aware of their legal rights and try to stand up for each other in situations where someone in the neighbourhood is being abused as reflected in the following statement by a rural woman (Respondent 31, Age: 36).

> *"There have been incidents where husbands hit their wives in our local area, but we have always tried to intervene. We always try to explain to any married couple that violence is not good and there are laws according to which the husband can*

go to jail if doesn't comply with! We need to stand up for each other as it can happen to anyone! You or me, today or tomorrow!".

Table 4.8 also provides stimulating evidence that various types of employment exert divergent influences on women's exposure to IPV. Women employed in different official positions face a higher likelihood of experiencing IPV, potentially attributed to multiple factors (i.e., men's insecurity, jealousy, shift in power dynamics, societal expectations etc.) that make it challenging to pinpoint a singular cause. For instance, the demand for high-pressured official jobs could cause stress that spills over into personal relationships, potentially escalating tension, and marital stress. Even, long hours or demanding jobs can lead to deviation from women's assumed HH responsibilities which can trigger male backlash and increase IPV exposure. Furthermore, husbands might find it challenging to handle their wife's achievements and feel a sense of emasculation which could potentially result in abusive behaviour. While it may seem puzzling that women in formal employment, who typically have higher education and income, experience domestic violence, it's important to highlight that women's acceptance of such violence is linked more to their social conditioning and situation than their financial status. The following quote is reflective of the same perspective where a highly educated woman with a steady job in Dhaka (Respondent 16, Age: 39) suffered from sustained abuse by her husband and said:

"I have a master's degree from the UK, and I work in one of the biggest development institutes in Bangladesh, yet I have been a victim of domestic abuse for the last thirteen years. The first time it happened when I was pregnant with my first daughter and my parents asked me to give him another chance. I gave him not one chance but thirteen years of my life, yet nothing changed. Now I have two daughters and my parents ask me to adjust for their social position and respect. They are worried about society more than me. I make enough money to cover all expenses for me and both my daughters, yet I must live with my husband and tolerate his abuse. His violent behaviour only got worse with time as now he knows that I have no support system and my parent won't accept my divorce. He knows that I will not leave for the sake of my daughters so he can torture me as much as he wants, not only physically but verbally and psychologically".

It's crucial to highlight that the societal pressure on women to endure abuse exists in both urban and rural areas, where divorce is still stigmatised and frowned upon forcing women to endure domestic abuse silently. However, it is apparent from the interviews that urban women often face more difficulties in getting support from their communities during such situations compared to women in rural areas. Although the familial pressure and social expectations are the same across both rural and urban settings in Bangladesh, the void of community support makes it harder for urban women to cope with IPV despite having better education and higher income. The collected narratives suggest that several other reasons contribute to this lack of support for women in urban settings, such as fragmented social structure and individualistic lifestyle, which limit community interaction. Moreover, lack of familiarity and social ties, coupled with the stigma around seeking help, creates barriers for urban women and reduces their access to robust community support when dealing with domestic violence or abuse. Whereas, in rural settings, stronger social ties and closer-knit

relationships often foster a more supportive environment. As discussed earlier, rural women's involvement in community activities and collaboration with NGOs provides an effective social safety net, providing a more accessible avenue for seeking help and support. Besides, rural areas in Bangladesh have more established community networks and/or programmes aimed at supporting individuals particularly women experiencing domestic violence compared to urban social settings. As a result, the close-knit community bonds and inter-connected rural communities are providing rural women with a shared trust and readiness to intervene for others in cases of IPV.

Table 4.9: Subsample Analysis of Women's IPV Exposure across Education Levels

VARIABLES	(HSC) **IPV Exposure 12 months**	(SSC) **IPV Exposure 12 months**	(Primary) **IPV Exposure 12 months**
Employed (full-time)	-1.634**	0.814	-0.487
	(0.527)	(0.653)	(0.276)
Constant	1.252	-0.612	-5.065**
	(3.644)	(2.570)	(2.210)
Observations	28	22	36
R-squared	0.526	0.811	0.474

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4.9 illustrates that within different educational groups of women, the estimated effect of women's full-time employment on their IPV exposure is negative at a 5% significance level for those who have a higher secondary level of education. The reason behind this finding could be rooted in the fact that higher secondary education equips women with the necessary skills and knowledge for better employment prospects as well as the confidence to challenge traditional gender norms. Additionally, this finding might suggest that women with a minimum of higher secondary education are better equipped to negotiate power dynamics within the domains of marriage which could lead to a decline in the likelihood of experiencing IPV. Such a finding resonates with prior research in particular a study by Dhanaraj and Mahambare (2022) which demonstrates that women with tertiary education and paid work are less likely to experience IPV for the reason that they can overcome the patriarchal norms.

4.4.5 Further Findings and Discussion

The qualitative findings are vital for understanding how women's employment affects their exposure to IPV, revealing pathways that can sometimes lead to conflicting outcomes. For instance, while certain components of women's employment such as financial independence and reduction of HH poverty can induce preventive effects against IPV exposure, women's increased control over HH resources and greater bargaining power can challenge the prevailing male dominance and trigger domestic violence. Similarly, increased public exposure and mobility among women are recurrently identified as a triggering factor of IPV regardless of their place of residence or level of education. This

finding is reflective of the deep-rooted social norms and patriarchal traditions that secluded women and confined them within the HH domain in Bangladesh for centuries. The strong patriarchal hold of women's subservient role in a society cannot be overlooked where women's lack of control over HH resources and social stigma around divorce make their perceived 'exit options' obsolete. Moreover, it is undeniable that the risk of IPV is greatest in cultures where violence against women is often normalised as a 'socially accepted' norm. As a result, the correlation between women's employment and their exposure to IPV appears to be complex and non-linear rather than a straightforward casual association. Therefore, making a definitive causal interpretation is regarded as a complex and ambiguous undertaking. A young female worker in the RMG sector (Respondent 2, Age: 19) provides a statement that illustrates such intricate complexity:

> *"My husband and mother-in-law want me to work in the factory so that I bring money to the family. But they don't involve me in any of the decision-making be it large or small. I hand over my entire salary to my mother-in-law. She doesn't allow me to purchase anything or decide what to cook. I am not allowed to go out other than work not even with my female friends at the factory. If I don't listen to her then she complains to my husband who doesn't like me to argue. He would stop talking to me for days, but he doesn't always curse me like my mother-in-law".*

The aforementioned narrative suggests that the theoretic assumption of empowering women with employment and reducing their exposure to IPV is still not valid for many women who are shackled into deeply entrenched patriarchal beliefs. The following personal narrative by an interviewee (Respondent: 32, Age: 42) confirms that bridging the gap between women's expectations of financial empowerment and their current realities still requires considerable progress. This is a powerful testament which points out how financial independence failed to protect a working woman from an abusive marriage and implies the limitation of women's employment in transcending social taboo relating to women's divorce. The following respondent has been self-employed for more than two decades and runs a small yet successful restaurant in a small suburban town in Bangladesh. From morning to midnight, she tirelessly works every day and surrenders her daily income to her husband who does nothing other than beat her. He maintains a second family with her hard-earned income, but she still prefers to be with him for the sake of her two sons and their social security. She would be physically abused by her husband each time she refused to hand over her income or asked for financial support. When asked why she is still married to the person, she replied:

> *"A violent husband is still better than being a single mother of two kids in this society as no one would respect me or my children if the father's name is not attached to their identity. I have suffered for as long as I remember only to earn a better future for my sons and have made sure that they get an education even if I don't have anything. No one respects an abandoned woman in our society, and everyone tries to take advantage of her"*.

It is also evident from the interviews that women value their employment because it provides them with financial autonomy, which is crucial for their sense of empowerment. Almost all the

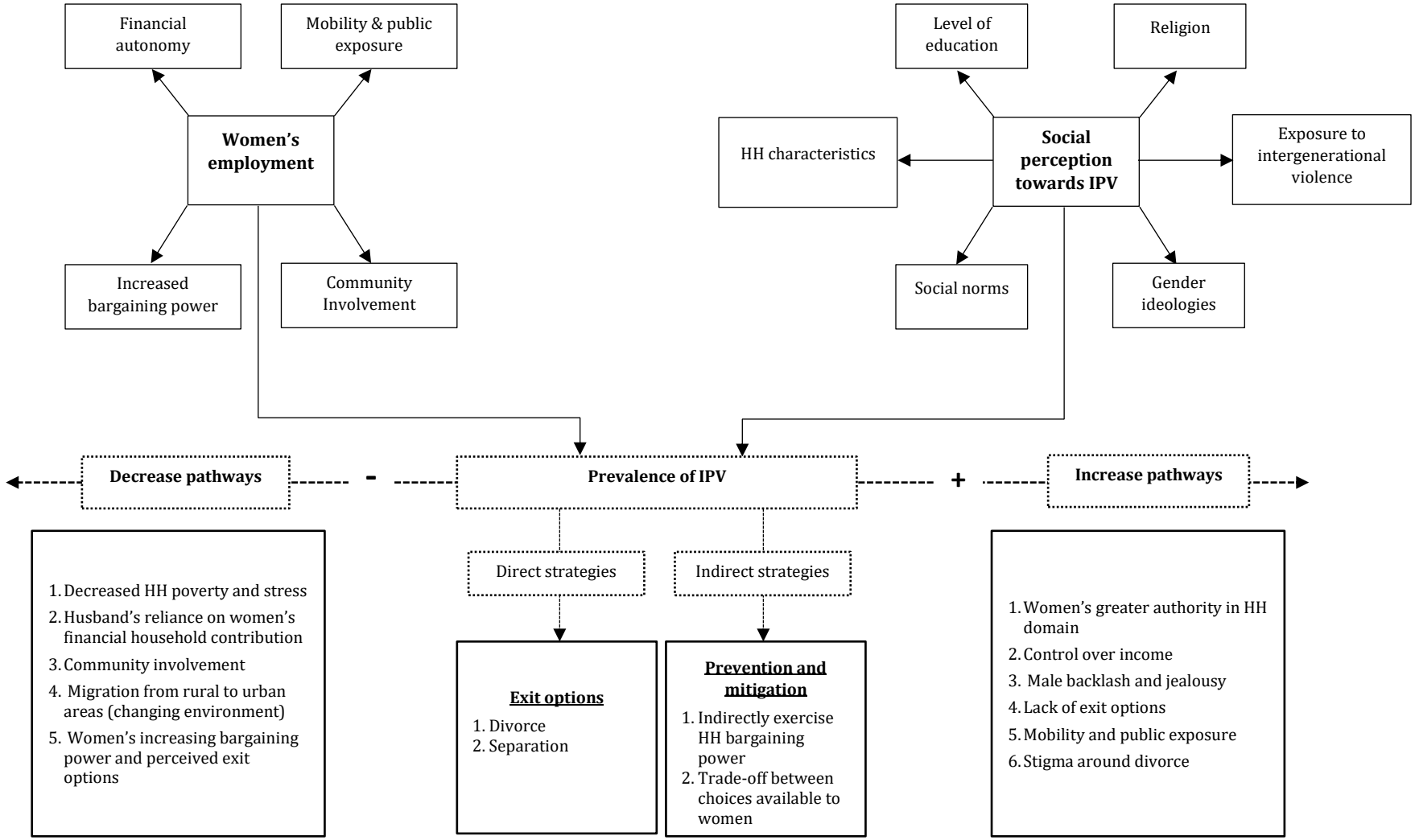
women interviewed in rural areas acknowledged that their employment and income allowed them to pay for their children's education expenses and to provide better opportunities than they ever had for themselves. The study findings also indicate that women seek to balance authority within the HH domain to retain their permission to work. For example, they might be willing to hand over their control over HH financial resources or voluntarily restrict their mobility in exchange for their ability to earn and contribute to their child's education and other HH expenses. There is a conscious and deliberate trade-off between various choices that these employed women make and often they choose HH well-being at the cost of their benefit. However, these decisions are their own, and it's important to recognise that this is their perception of empowerment. Many working women in rural areas do not own any bank account and allow their husbands to control financial decisions to avoid conflicts and IPV exposure. In addition, assets accumulated from both of their earnings are mostly handled by their husbands. Women, in many cases, expressed that men are better at handling money and/or identified their husbands as the HH guardians who must be responsible for critical decisions such as financial investments and assets. These findings align with previous study findings suggesting that when women lack control over HH assets and patriarchal dominance over family income persists, women's employment (i.e., self-employment through microcredit) may not deliver the anticipated empowerment (i.e., Garikipati, 2008).

Another common preventive tactic employed by working women in both rural and urban areas of Bangladesh involves limiting their mobility and public exposure to conform to societal norms and comply with their husband's directives. However, the extent of control over working women's mobility varies notably across the survey sample which is largely influenced by stricter adherence to religious and conservative norms in rural settings. However, similar patterns of constrained mobility are also prevalent in urban areas. The interviewed RMG workers from urban areas reported that they are only allowed to go to work but not to other places alone. In addition, they are not allowed to talk to male colleagues as their husbands don't like them being seen with other men. This systematic and recurrent pattern of refraining women from engaging in intimate or lengthy discussions with male colleagues is reflective of the traditional values, religious teachings, or societal norms that prioritise modesty, fidelity, and /or preservation of family honour. It is often rooted in the idea that protecting the sanctity of marriage, avoiding any potential misunderstanding, and maintaining social approval are the primary responsibilities of women. There is a visible effort from working women in both urban and rural settings to meet societal expectations, aiming to preserve their job opportunities while also mitigating the risk of experiencing IPV.

In summary, women's employment can offer a degree of influence in HH decision-making through financial contribution. However, it often falls short in challenging deep-rooted social norms and cultural expectations, where women are still socially compelled to tolerate domestic violence while being the primary caregiver of the family. Figure 4.2 depicts the integration of quantitative and qualitative findings of the current study and suggests that the trajectory of the proposed correlation

begins with women's employment, setting off pathways toward their empowerment in the forms of financial autonomy, mobility, increased public exposure, greater bargaining power, and community involvement. These divergent pathways of women's empowerment destabilise the prevailing HH power relations and gender roles which can simultaneously decrease women's exposure to IPV and increase the likelihood of IPV prevalence by triggering male backlash. Furthermore, the social attitudes and hierarchical status of women significantly impact their IPV experiences. The combined impacts of women's employment and societal attitudes determine the occurrence of IPV (as depicted in Figure 4.2). Hence, it would be reasonable to consider that the impacts of women's employment on IPV are not uniform but rather diverse, contingent upon their socio-economic status and various contextual factors. The collective impact of these factors defines the array of choices available to women (including perceived exit options), serves as a preventive measure against IPV and contributes to changes in gender dynamics in Bangladesh. Women's increasing workforce participation is slowly and gradually becoming more accepted (normative) across various social settings in Bangladesh which is indicative of transformative trends in the country's social landscape. However, it is crucial to be realistic and accept that existing gender norms persist denying women the right to be regarded as equals within the sanctity of marriage. This perpetuates men's authority and allows them to exert dominance and assert power through IPV. As women's employment progressively becomes a defence mechanism against IPV, effecting substantial changes might require a collective and long-term effort from various stakeholders for a patriarchal society like Bangladesh to change the mindsets of both men and women.

Figure 4.2: Synopsis of Intimate Partner Violence Pathways



4.5 Conclusion with Limitations and Future Recommendations

Over the last 30 years, developing countries like Bangladesh have witnessed two simultaneous and parallel trends i.e., a rise in female education and participation in the labour force. However, considering these women-centric development initiatives undertaken by both the government of Bangladesh and various stakeholders in isolation would be naïve and over-simplistic. Existing literature suggests that both female education and labour force participation have been effective in delaying early marriage for girls, postponing fertility, and enhancing infant health, child nutrition, education, health and HH wellbeing. However, impacts on women's well-being, specifically in terms of IPV exposure, aren't conclusively established and could potentially be context-specific (Erten & Keskin, 2021). Moreover, existing literature offers limited causal evidence on the correlation between women's employment and their exposure to IPV, with findings presenting a mixed indication (Bulte & Lensink, 2021; Heath & Jayachandran, 2018a). Several studies (e.g., Fakir et al., 2016; Villarreal, 2007) have highlighted that certain overlooked factors relating to women's employment can potentially (endogeneity bias) reverse and/or invalidate the estimated link between their employment and IPV. Given the scope, the current study attempts to explore the association between women's employment and IPV exposure by utilising a mixed method approach to extend the scope of research beyond statistical interpretations and to supplement a better understanding of the causal association.

In contrast to existing literature suggesting women's empowerment (including employment pathway) as a risk factor for IPV, the current study presents that the dynamics of this causal link are evolving, and specific elements of women's employment now serve as protective measures against IPV. Meanwhile, it is also evident that several alternate pathways can trigger the risk of IPV exposure for women in terms of their employment. The current study findings reveal that certain aspects of women's employment are significantly effective in reducing the likelihood of IPV exposure. These aspects include contributing financially to HH expenses, sharing financial stress with husbands, and bearing child expenses including their education. Conversely, other aspects of employment such as unrestricted mobility, public exposure and control over assets are linked to higher odds of experiencing IPV. The contradictory evidence observed mirrors findings from other studies in Bangladesh, where men perceive certain traits of empowered women (i.e., unrestricted mobility, involvement in public spheres, and engaging in disagreements with their husbands), as both confrontational and 'transgressive' (Schuler et al., 2017). However, women themselves acknowledged these contrasting effects of their employment and identified certain factors that might trigger IPV to proactively adopt strategies which mitigate the risk factors of IPV and protect their right to work. From the perspective of Kabeer's empowerment framework, such strategic preferences could be explained in terms of 'choices' where women despite having greater 'agency' decide to actively opt out from certain decisions and/or activities within the HH domain that could induce the occurrence of IPV. These deliberate choices made by working women are not necessarily

disempowering but rather a strategic move to preserve their right to make other choices that they consider more valuable.

In the context of Bangladesh, another crucial aspect related to decreasing IPV is the ideological grounding against domestic violence within the local communities according to Kabeer (2011) as "instances of group protests against IPV and other forms of violence against women". Another study by Schuler et al. (2013) supported this argument by crediting the sustained efforts of local NGOs in changing social attitudes towards violence against women in Bangladesh. As stated by Barrington et al. (2022), gendered ideologies and societal norms could limit the transformative potential of financial support in reducing IPV sustainably over a longer period. These findings are particularly relevant to the narrative of rural women employed in various microcredit-based income-generation activities in this study sample. In the absence of microcredit, these women might not be able to sustain their independent earnings and could revert to absolute financial dependence on their husbands making their situation worse. Their lack of sufficient education, necessary skills for alternate career choices, and limited alternate employment opportunities make home-based enterprises (both microcredit and SMEs) their only source of employment and income. Furthermore, women's sense of belonging within their communities, nurtured by their participation in microcredit and NGO activities, remains visibly evident. Importantly, their narratives from interviews consistently reveal that community interventions are more effective in combating IPV given that their family members typically encourage them to endure abuse for the sake of social norms, prestige, and traditions.

Given these contrasted yet interesting empirical findings, it is extremely challenging to outline any unequivocal conclusion regarding the effects of women's employment or financial empowerment on their IPV exposure as outcomes could largely be mediated by underlying socio-cultural contexts. The link between women's empowerment and IPV risk is inherently nonlinear, as violence often surfaces not only in response to the financial crisis but also as a reaction to perceived threats to traditional gender roles where 'male identity' is challenged. In patriarchal societies, this pattern of male backlash to women's augmented finances is more prominent as any act of violence against women is deemed as a socially acceptable norm to reinforce male dominance and perpetuate women's subordinate roles in society. This proposition aligns with "feminist theory" and "family violence theory" which view IPV as 'an expression of gender-based domination' (Lawson, 2012), primarily driven by men's need for coercive control (Dobash & Dobash, 1997) and HH conflict resolution (Straus & Gelles, 2017). Therefore, sustained effort in educating men should be prioritised to extend their perception of identities beyond primeval gender roles i.e., provider of the family or breadwinner (Barajas-Gonzalez et al., 2018; Flake & Forste, 2006; Ingoldsby et al., 1999). For instance, implementing gender sensitisation programmes designed to educate both men and women within communities can foster progressive attitudes and create supportive environments conducive to gender equality. These awareness programmes should be integrated into government and non-

government development agendas for maximum outreach and could be delivered through educational institutions, community interventions, and workplace training to promote egalitarian values and gender equality.

Equally, it is imperative to understand that any change in women's exposure to IPV described above is not essentially the sole outcome of their employment. Instead, the current study suggests that women's employment interacts with multiple associated factors to reduce their vulnerability to IPV. These factors encompass education, women's engagement in microcredit programmes, poverty alleviation initiatives, government-sponsored programmes, interventions by local NGOs, community-based networks, and the engagement of diverse stakeholders. Several studies (i.e., Bates et al., 2004; Jewkes et al., 2002; Schuler et al., 2013; Vyas & Watts, 2009) have recorded several interrelating factors such as development of rural economy, education, and poverty alleviation to be a contributor to reduce the IPV. Considering such findings, prioritising a minimum of intermediate-level education and skill development alongside employment opportunities for women is crucial, as it can enhance women's capabilities and expand their employment prospects. Moreover, providing skill-building programmes tailored for women from low-income backgrounds, aligned with current market needs, can augment their employability and entrepreneurial skills, acknowledging the restricted opportunities currently available to them. Accordingly, promoting collaborative programmes (involving government agencies, local NGOs, and community leaders) which offer vocational training, financial literacy workshops, and microcredit can offer comprehensive resources and support structures for women. In addition, utilising educational institutions and community centres, supported by government funding, NGO expertise, and community-led awareness campaigns can empower women more systematically and can further help to prevent IPV. Finally, given the effectiveness of microcredit group membership in preventing IPV within rural settings, it is essential to extend its reach to grassroots levels, encompassing not just rural but also urban settings. This expansion can involve adapting the mandatory 'group membership' component of the microcredit model to cater to the diverse needs of both rural and urban communities. For instance, creating community support groups or forums (facilitated by some local NGOs, currently it is only limited to rural settings), community centres, or women's organisations can offer a secure environment for urban women. These spaces can facilitate discussions, resource sharing, skill enhancement, and an inclusive support network, ultimately fostering solidarity, empowering them with their rights, building confidence, and promoting social validation to effectively address IPV concerns.

Furthermore, as Sabarwal et al. (2014) confirmed that women's exposure to IPV and dimensions of their autonomy are contingent upon societal contexts, the current study found that it not only varies across diverse social contexts, but is also conditional upon demographic, geographic, and socio-economic characteristics. For instance, evidence suggests that women from low-income groups are more reluctant to social stigma around 'divorce' are paradoxically appeared to be more

autonomous in resisting IPV compared to educated women with well-paid jobs. Thus, women's underlying social contexts including familial pressure appear to be more powerful in determining their perceived 'exit options' compared to financial security. Bearing that in mind, future policy prescriptions in favour of women's empowerment should be attuned to underlying cultural norms and social contexts. For instance, developing programmes that honour cultural values and traditions while promoting women's empowerment necessitates crucial engagement with community leaders and influential figures for effective alignment with cultural norms in policymaking. Moreover, investing in grassroot-level organisations, deeply embedded in local contexts, is pivotal. These groups possess intricate cultural insights and strong community ties, enabling effective advocacy for women's rights while upholding cultural sensitivities through support and collaboration. Furthermore, partnering and gaining endorsement through local leaders, religious institutions, and community-based organisations to promote women's empowerment are crucial, as they not only lend credibility but also facilitate the dissemination of policy interventions within the community. Also, the implementation of sustained awareness campaigns focused on cultural norms linked to gender equality should be continuous, engaging, and aimed at long-term impact. These gradual shifts in cultural attitudes can lay the foundation for more inclusive and empowering environments for women. Besides, promoting community engagement through forums that enable local voices, foster dialogue, and involve women can contribute to the development and implementation of policies that align with community needs and beliefs. Finally, enforcing the law that respects religious/cultural values while protecting women's rights is necessary. For example, Bangladesh, being a predominantly Muslim nation, aligns the marriageable age with the concept of sound judgment in Islam (considered as an age of responsible possession handling). This perspective is reflected in the Bangladesh Child Marriage Restraint Act (1929), setting the legal marriage age at 18 for females, with offences against this law even punishable by imprisonment. However, the practice of early marriage remains a significant challenge owing to reluctance in law enforcement. Hence, stricter law enforcement is imperative in addressing the protection of women's rights in Bangladesh.

Women's exposure to IPV, unlike other domains of empowerment (such as financial or HH decision-making autonomy), is a complex and context-sensitive subject. The current study insists upon fundamental changes in the prevailing gendered ideologies and cultural norms of a society with patriarchal beliefs. Women's increasing financial independence and public involvement face resistance in circumstances where traditional roles are deeply ingrained into power and gender relations. Whether women's employment becomes a protective factor against IPV within a patriarchal yet evolving society like Bangladesh depends on women's ability to challenge social inequalities (Kabeer, 2011) and alter their perception of rights and capabilities to transcend internalised social oppression (Rowlands, 2022). Hence, understanding the transformation of women's tolerance towards domestic violence through pathways of employment requires further research. While this study creates new avenues for future research in understanding the varied

effects of women's employment on their exposure to IPV in the context of prevailing social and gender norms, the study has its limitations. The empirical model of this paper is restricted in its capacity to derive any causal inferences due to endogeneity issues. Even though, the current study captures the heterogeneity in women's IPV experiences in their employment and indicates changing social norms; further research would be helpful to address the endogenous nature of women's employment while identifying the causal association with their IPV exposure. Also, the study did not collect data on men's perceptions of IPV. Future research would benefit from encompassing perspectives of both genders to capture a rather comprehensive picture of shifting gender roles and altering power dynamics in a rapidly changing society. Future research might also benefit from employing longitudinal data spanning over a longer period to systematically understand the long-run impacts of women's employment on their exposure to IPV. So far, very little is known about the potential adverse effects of women's growing involvement in the formal job sector. Therefore, further research relating to the consequences of women's employment including their exposure to IPV would facilitate effective policy formulation that fosters social development not at the expense of women. Lastly, future studies should adopt nuanced definitions of empowerment which include women's wellbeing and exposure to IPV. This emphasises the need for a comprehensive understanding of women's subjective empowerment and varied circumstances before using women's empowerment as a universal solution for gender equality and societal development.

Chapter 5

Conclusion

This thesis focuses on examining the process of women's empowerment within the context of a developing country, specifically Bangladesh. It does so by analysing two key pathways: women's access to education and their employment opportunities. This research stands out from previous studies due to its unique definition of empowerment. Unlike existing studies that primarily focus on autonomy and control within HHs, this study expands the empowerment framework to encompass women's well-being, specifically considering their exposure to intimate partner violence (IPV). Additionally, the current study makes a distinction between indicators of women's empowerment from overall HH welfare (i.e., child health, nutrition, education, income level) which is often interchangeably used to measure women's empowerment level. The three papers of this study dissect various pathways to women's empowerment as a response to their access to resources i.e., education and employment. The following discussion will present the key findings from each paper to consolidate the outcomes of sustained efforts by both government and non-government organisations in Bangladesh aimed at empowering women. Subsequently, the study will summarise the current status of women in Bangladesh based on the consolidated findings of all three papers and provide recommendations for advancing women's empowerment.

Findings from the first paper show that women's access to education has varied effects on their different domains of autonomy (i.e., financial, physical, HH decision-making, perceptual). In addition, the effect of education is conditional upon the duration of women's exposure to education implying the significance of the 'dose effect' i.e., longer exposure is equivalent to a higher effect. Overall, this paper found mixed evidence in support of the claim that women's education enhances their level of autonomy. It is apparent that women's education significantly increases their financial autonomy in terms of solo decision-making while decreasing their joint decision-making (with husbands). However, education seems to be ineffective in altering women's freedom of movement as a statistically insignificant relationship was found between women's education and their physical autonomy. Furthermore, women's autonomy in HH decision-making is significantly associated with their education reflecting their improved bargaining power within the HH domain. Finally, education is found to substantially render women's tolerance of domestic violence, but it is too early to claim that education can function as a protective factor against women's exposure to marital abuse and violence. Based on the supposition from previous studies, it is recommended that educated women's enhanced confidence and awareness might trigger a male backlash by challenging prevailing social norms and hierarchical gender relations in a patriarchal society like Bangladesh. For instance, women's access to resources (relative to men) might put them at a greater risk of IPV exposure because of transgressive social customs and gender norms where men justify IPV on the grounds of women's alleged transgression of traditional gender norms. Contrarily, the relationship between

women's empowerment and their exposure to IPV is simultaneously evolving and becoming more normative in a social setting where gender roles are rapidly transforming. However, the findings suggest that, while education alone is not sufficient for creating equal opportunity for women and guaranteeing gender equality, it is fundamental for developing individual capabilities, initiating the process of empowerment, and bringing collective change in social and gender norms.

Nevertheless, evidence from the second paper (chapter three) suggests that women's employment significantly enhances their HH decision-making autonomy. However, it is ineffective in augmenting their financial autonomy (either solo or joint decision-making). Hence, it is reflective of the heterogeneity in women's employment experiences to stimulate empowerment across varied dimensions. Furthermore, the result indicates that the association between women's employment and autonomy is non-linear and heterogeneous among sub-groups of women. This suggests that determinants of women's autonomy will vary across different domains of HH decision-making due to underlying social contexts and prevailing cultural norms. Therefore, women's employment might not be sufficient to challenge the gendered division of power within the HH domain, where men are considered the breadwinner of the family in a patriarchal society. Therefore, it is crucial to comprehend the fundamental social contexts when assessing women's comparative bargaining power and independence. Yet, the importance of women's employment in fostering their empowerment cannot be underestimated and evaluating it must involve considering the pertinence of their social environments.

Based on the proposition that women's employment might not be sufficient to challenge the sustained gender roles and traditionalist social norms, the final paper examines the effects of women's employment on their perception and exposure to marital violence and abuse. Unsurprisingly it finds that despite certain improvements in women's socio-economic status and reduction of IPV prevalence, women in Bangladesh downplay their authority and control over HH decision-making to preserve the social expectation of men being the breadwinners. However, the significance of women's employment cannot be overlooked and women's journey from absolute disempowerment to relative empowerment should be considered. The findings of the final paper clarify the confounding dynamic of women's empowerment in relation to IPV where certain trajectories of women's autonomy may increase the risk of marital conflict and violence while other pathways provide them with protection against IPV. It is clear that the complexities of interpersonal, social, communal, and contextual factors need to be recognised and dealt with caution while assuming association. Moreover, any generalisation could potentially lead to misinterpretation and/or biased assertion, hence it is time to create a sounder base for formulating, designing, and implementing development interventions that combine women's empowerment with anti-violence strategies for synchronised application.

The most important revelation of this final paper is the fact that women's education might not always safeguard them from exposure to domestic violence, particularly IPV. The contrasting

evidence from rural and urban areas demonstrates that women from lesser educational backgrounds with lower income levels are more resistant to domestic violence, while women with higher education and a better salary surrender to male dominance and marital abuse due to social and familial pressure. This finding is particularly relevant in understanding the extent to which resources like education and employment can be effective in empowering women. Also, it is evident that community interventions are highly effective in preventing the occurrence of IPV, particularly in rural areas of Bangladesh, which has been instrumental in providing women with a support network and a sense of belongingness. Hence, this should be replicated on a broader scale including the urban areas to provide women with community support in managing exposure to IPV. Simultaneously, community interventions should be designed in a way so that not only women, but men can be a part of communal activities and development programmes given both genders need to be educated to handle the role reversal of traditional gender and power relations. It is apparent that both 'resource theory' and 'male backlash theory' function concurrently making it a perplexing and evolving social situation where women's enhanced bargaining power and authority can be accepted by their partners but might also threaten male dominance. As a result, such contradictory assertions make it difficult to derive any uniform association between women's improved financial autonomy (via employment) and their exposure to IPV. Therefore, multiple interventions should be simultaneously initiated to empower women with access to resources like education and employment. In addition, interventions should be targeted at sensitising the communities and society at large to become more approbative towards empowered women.

To conclude, it cannot be denied that access to resources stimulates certain pathways to women's empowerment via various domains of autonomy. Although the emphasis on women's access to resources such as education and employment resonates as a compelling argument for equipping them with necessary tools of empowerment, it might not be sufficient to overcome the socio-cultural barriers. Hence, social norms and gender relations are equally significant in shaping women's journey to empowerment and ultimately determine their social position. Thus, policymakers and development practitioners should understand that women's access to resources should be supplemented with inclusive and gender-sensitive facilitations, especially in a country like Bangladesh. The rapidly progressing economic interventions promoting women's empowerment via education and employment opportunities should be paired with sustained development agendas that create social awareness and acceptance of women's enhanced and autonomous social position. Acknowledging the patriarchal and religious social backgrounds of Bangladesh, development interventions should promote campaigns not only for women but also for men to have inclusive and sustained social development. For women to transcend all the varied dimensions of empowerment, a combination of all resources together with community support and a sense of belonging is necessary to make informed choices and decisions.

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Appendix A
(First Stage IV Estimation)

i. Solo Financial Autonomy

Number of observations = 4903	
F (23, 4879) = 21.01	
Prob > F = 0.0000	
Variables	employed
External IV (active employment rate)	0.00600***
	(0.00166)
Constant	0.333*
	(0.172)
Observations	4,903
Cragg-Donald F statistic	11.766

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

ii. Joint Financial Autonomy

Number of observations = 4903	
F (23, 4879) = 3.08	
Prob > F = 0.0000	
Variables	employed
External IV (active employment rate)	0.00600***
	(0.00166)
Constant	0.333*
	(0.172)
Observations	4,903
	11.766

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

iii. HH DM Autonomy

Number of observations = 10318	
F (23, 10294) = 20.93	
Prob > F = 0.0000	
Variables	employed
External IV (active employment rate)	0.0123***
	(0.00214)
Constant	-1.313***
	(0.212)
Observations	10,318
Cragg-Donald F statistic	33.587

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Appendix B.1
(Interview Round: Phase 1)

Interview Round: Phase 1

Target Group: Ever married women_15-49 years, currently full-time employed)
Interview duration: 30-40 minutes

Date:
Serial number:
Name:
Age:
Current Residential Location:
Division:
Education Background:
Occupation:
Husband Age:
Husband Education Background:
Number of Children:

Open-ended Questionnaire

No	Question
1.	In your household (HH), what are the decisions that you solely take, and which ones are made by your husband solely?
2.	Are there any joint HH decisions taken by both you and your husband?
3.	How often you can say no to a joint decision that you don't agree upon?
4.	Are there any restrictions on your mobility by your husband and/or in laws or else in general except for going to work?
5.	Do you feel safe while going outside all by yourself at certain times such as at night time?
6.	If not, is it because you are concerned about your safety and/or because your husband/in laws won't approve and/or what people might say?
7.	How often you go outside except for work such as shopping, leisure, meeting friends?
8.	Do you go to banks, grocery shopping and doctors/hospitals for yourself/kids alone?
9.	Can you independently decide how to spend your job earnings both for HH and your own self?
10.	Do you have any say on your husband's earning expenditure?
11.	Do you have any savings account? Is it a single or joint account with your husband?
12.	What is the HH division of labour situation? (Who does cooking, cleaning, taking care of children, elderly care, and familial/social relations maintenance?)
13.	Do you have any hobby like going to a movie, book fair? (proxy question to understand the work-life balance or if she has any leisure time at her disposal)
14.	How often you go out for yourself like meeting friends or social functions except for social invitations like a wedding/birthday any family get together?
15.	Do your husband or other family members restrict your activities in any way, or do you stop yourself from doing something just because what people might say even if that's good for you? (to capture cultural aspects or social norms)
16.	What is empowerment to you? (if needed provide an explanation/definition for instance, empowerment can be viewed as autonomy/independence/ decision-making ability/ co-independence/equality depending on how an individual perceives it)
17.	What are the factors important to you to be empowered?
18.	Do you think your education/job enables you to be empowered? Which one helps more you think, being employed or educated?
19.	What if you didn't work, you could still be equally independent as you are now?
20.	Do you think physical abuse such as wife beating is justified under various circumstance?
21.	Do you think psychological abuse is equally important for your wellbeing?
22.	Have you ever witnessed marital abuse (both physical & psychological) in your family before getting married and among neighbours and/or friends' family?
23.	Have you ever been exposed to any kind of domestic/marital abuse either physical or mental in the past 12 months?
24.	Have you experienced domestic/marital abuse in any form during your entire married life?

Appendix B.2
(Survey Questionnaire: Phase 2)

জরিপ নং			

গবেষণামূলক জরিপ

আসসালামুয়ালাইকুম, আমার নাম জিসান আফরিন। আমি ইংল্যান্ডের একটি বিশ্ববিদ্যালয়, ইউনিভার্সিটি অফ রেডিং এ গবেষণামূলক পড়াশুনার সাথে জড়িত। আমার গবেষণার বিষয় হচ্ছে বাংলাদেশের নারী স্বাধীনতা এবং ক্ষমতায়ন। এই জরিপে নারীদের পারিবারিক, আর্থিক, চলাচলের স্বাধীনতা, বৈবাহিক সম্পর্ক, পারিবারিক দায়িত্ব, ব্যক্তিস্বাধীনতা, ব্যক্তিক্ষমতায়ন, মানসিক ও শারীরিক সুস্থতা বিষয়ে কিছু প্রশ্ন করা হয়েছে। এই প্রশ্নগুলো উত্তর দিতে প্রায় ৩০ থেকে ৪০ মিনিট সময়ের প্রয়োজন।

একটি জরুরী বিষয় হল যে, যেহেতু এই জরিপে আপনার অথবা আপনার পরিবারের কারো নাম উল্লেখ করার প্রয়োজনীয়তা নেই, সেহেতু আপনার নাম এবং আপনার পরিবারের কারো নাম এই গবেষণা থেকে প্রাপ্ত কোনও প্রবন্ধে বা প্রতিবেদনে উপস্থিত হবে না। আপনি যে সব উত্তর দেবেন তার গোপনীয়তা রক্ষা করা হবে এবং গবেষণা ছাড়া অন্য কোন কাজে ব্যবহার করা হবে না। এমনকি, আপনাদের কোন উত্তরই আপনার পরিবার কিংবা সমীক্ষা দলের অন্য কোনও সদস্যেকে অবহিত করা হবে না।

আপনি যদি কোন প্রশ্নের উত্তর দিতে না চান, তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন এবং পরবর্তী প্রশ্নে চলে যান। আপনি যে কোনও সময় জরিপে অংশগ্রহণ থেকে বিরত হতে পারবেন। তবে আমি আশা করি আপনি এই জরিপে অংশগ্রহণ করে প্রশ্নগুলির উত্তর দিতে রাজি হবেন। আপনার এই প্রয়োজনীয় মতামত ভবিষ্যতে বাংলাদেশের নারীদের জীবনের মান উন্নয়নে এবং কল্যাণ প্রসারে অত্যন্ত গুরুত্বপূর্ণ ভূমিকা পালনে সহায়তা করবে। আপনি জরিপে অংশ নেওয়ার সিদ্ধান্ত নিলে, জরিপ সম্পর্কে আপনার আরও কোন প্রশ্ন থাকলে আমি আপনাকে আরও তথ্য সরবরাহ করতে পারব বলে আশা করছি।

এই জরিপে সংগৃহীত তথ্য এবং উপাত্ত সমূহ, অত্তান্ত নিরাপত্তার সাথে সংরক্ষিত হবে। অনুরোধের পরিপ্রেক্ষিতে গবেষণার ফলাফলগুলির সারসংক্ষেপ অবহিত করা যেতে পারে, কিন্তু গবেষণার ফলাফল/সারসংক্ষেপ অবহিত করার অথবা না করার একমাত্র কর্তৃত্ব/অধিকার গবেষকের রয়েছে।

আপনি কি জরিপে অংশগ্রহণ এ ইচ্ছুক? আপনার জন্য প্রযোজ্য ঘরে টিক চিহ্ন দিন।	হ্যাঁ ❒	না ❒

আপনাকে অনেক ধন্যবাদ জরিপে অংশগ্রহনে ইচ্ছা প্রকাশ করার জন্য।

এখন তাহলে জরিপ শুরু করা যাক।

বিভাগ - ক

এই অংশে উত্তরদাতা সম্পর্কিত তথ্য জানতে চাওয়া হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে টিক চিহ্ন দিন।

লিঙ্গ

(১) পুরুষ ❐
(২) নারী ❐

আপনার জন্ম সাল

_____

আপনার বয়স

(১) অপ্রাপ্তবয়স্ক (১৪-১৭ বছর বয়স) ❐
(২) বয়স ১৮-২৪ বছর ❐
(৩) বয়স ২৫-৩৪ বছর ❐
(৪) বয়স ৩৫-৪৪ বছর ❐
(৫) বয়স ৪৫-৪৯ বছর ❐

বৈবাহিক অবস্থা

(১) অবিবাহিত ❐
(২) বিবাহিত ❐
(৩) বিধবা ❐
(৪) তালাকপ্রাপ্ত ❐
(৫) স্বামী বা স্ত্রী ছেড়ে চলে গেছেন ❐

পরিবারের প্রধানের সাথে আপনার সম্পর্ক

(১) স্বামী ❐
(২) বাবা ❐
(৩) মা ❐
(৪) শশুর ❐
(৫) শাশুড়ি ❐
(৬) অন্যান্য_____

পরিবারের প্রধানের বয়স

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আপনার ধর্ম

(১) ইসলাম ❐
(২) হিন্দু ❐
(৩) খ্রীষ্টান ❐
(৪) বৌদ্ধ ❐
(৫) অন্যান্য _____

বসবাসরত জেলা

(১) বরিশাল ❐
(২) চট্টগ্রাম ❐
(৩) ঢাকা ❐
(৪) ময়মনসিংহ ❐
(৫) খুলনা ❐
(৬) রাজশাহী ❐
(৭) রংপুর ❐
(৮) সিলেট ❐

বসবাসরত এলাকা

(১) শহর ❐
(২) গ্রাম ❐

পরিবারের সদস্য সংখ্যা (সন্তান সহ)

(১) একজন ❐
(২) দুইজন ❐
(৩) তিনজন ❐
(৪) চারজন ❐
(৫) পাঁচজন ❐
(৬) অন্যান্য _____

পরিবারের সন্তান সংখ্যা

(১) একজন ❐
(২) দুইজন ❐
(৩) তিনজন ❐
(৪) অন্যান্য _____

বিভাগ – খ

এই অংশে উত্তরদাতার শিক্ষা, কর্মসংস্থান এবং পেশা সম্পর্কিত তথ্য জানতে চাওয়া হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে টিক চিহ্ন দিন।

আপনার শিক্ষাগত যোগ্যতা

(১) প্রথাগত শিক্ষা নেই ❐
(২) প্রাথমিক শিক্ষা (১-৫ শ্রেণী) ❐
(৩) মাধ্যমিক শিক্ষা (৬-৮ শ্রেণী) ❐
(৪) মাধ্যমিক শিক্ষা (৯-১০ শ্রেণী/এসএসসি) ❐
(৫) উচ্চ মাধ্যমিক শিক্ষা (এইচএসসি) ❐

বসবাসকৃত ঘরের ধরন

(১) কাঁচা ঘর ❐
(২) আধাকাঁচা ঘর ❐
(৩) পাকা ঘর ❐
(৪) পাকা দোতালা ঘর (গ্রাম) ❐
(৫) ফ্ল্যাট বাড়ি ❐

(৬) স্নাতক ❒
(৭) স্নাতকোত্তর ❒
(৮) অন্যান্য _____

আপনার নিজের কোন কৃষি বা অকৃষি **জমি আছে কি?**
(১) হ্যাঁ, আছে ❒
(২) না, নেই ❒

যদি এই প্রশ্নের উত্তর হ্যাঁ হয়ে থাকে, তবে আপনি কতটুকু জমির মালিক উল্লেখ করুন

_____

আপনার যৌথভাবে কারও সাথে **কোন** কৃষি বা অকৃষি **জমি আছে কি?**
(১) হ্যাঁ, আছে ❒
(২) না, নেই ❒

যদি এই প্রশ্নের উত্তর হ্যাঁ হয়ে থাকে, তবে যৌথভাবে কার সাথে জমি আছে উল্লেখ করুন।

_____

আপনি যে বাড়িতে থাকেন সেই বাড়িতে পানির উৎস কি?
(১) নিজস্ব নলকূপ ❒
(২) প্রতিবেশীর নলকূপ ❒
(৩) সমবায়/সমিতির প্রতিস্থাপিত নলকূপ/পানির লাইন ❒
(৪) নিজস্ব পুকুর ❒
(৫) প্রতিবেশীর পুকুর ❒
(৬) নদীর পানি ❒
(৭) সরকার পরিচালিত পানি সরবাহের লাইন (ওয়াসা) ❒
(৮) অন্যান্য _____

আপনি কি নিচের কোন সংগঠনের সাথে জড়িত?
(১) ক্ষুদ্রঋণ ভিত্তিক সংগঠন ❒
(২) এনজিও ভিত্তিক সমিতি ❒
(৩) সমবায় সমিতি ❒
(৪) নারী সংগঠন ❒
(৫) শ্রম সংগঠন (লেবার ইউনিয়ন) ❒
(৬) এলাকা ভিত্তিক সামাজিক সংগঠন ❒
(৭) অন্যান্য _____

(৬) একতলা বাড়ি ❒
(৭) দোতালা বাড়ি ❒
(৮) বহুতল বাড়ি ❒
(৬) অন্যান্য

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আপনি যে বাড়িতে থাকেন তার মালিকানা কি আপানার?
(১) হ্যাঁ ❒
(২) না ❒

কর্মের ধরন
(১) ঋতু ভিত্তিক/ মৌসুমি ❒
(২) বছরব্যাপী ❒

কর্মঘণ্টা
(১) প্রতিদিন ৪ ঘণ্টার কম ❒
(২) প্রতিদিন ৪-৭ ঘণ্টা ❒
(৩) প্রতিদিন ৮ ঘণ্টা ❒
(৪) প্রতিদিন ৯-১০ ঘণ্টা ❒
(৫) প্রতিদিন ১১-১২ ঘণ্টা ❒
(৬) প্রতিদিন ১৪ ঘণ্টা ও এর ঊর্ধ্বে ❒

কর্মক্ষেত্র
(১) কৃষি ভিত্তিক কাজ ❒
(২) উৎপাদনশিল্প-সংক্রান্ত কাজ ❒
(৩) ক্ষুদ্র শিল্প (হস্তশিল্প, কারুশিল্প, কাঠের কাজ ইত্যাদি) ❒
(৪) ক্ষুদ্র উদ্যোক্তা ❒
(৫) চাকুরীজীবী ❒
(৬) অন্যান্য

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উপার্জনের ধরন
(১) মাসিক মজুরি/বেতন ❒
(২) দৈনিক মজুরি/বেতন ❒
(৩) ব্যবসায়িক মুনাফা বণ্টন (অংশীদারের সাথে) ❒
(৪) নিজস্ব ক্ষুদ্র উদ্যোগ থেকে মুনাফা ❒
(৫) অন্যান্য _____

মাসিক উপার্জনের পরিমান
(১) ১০,০০০ টাকা ও তার কম ❒
(২) ১১,০০০-১৫,০০০ টাকা ❒
(৩) ১৬,০০০-২০,০০০ টাকা ❒
(৪) ২১,০০০-২৫,০০০ টাকা ❒
(৫) ২৬,০০০-৩০,০০০ টাকা ❒

(৬) ৩১,০০০-৩৫,০০০ টাকা ❒
(৭) ৩৬,০০০-৪০,০০০ টাকা ❒
(৮) ৪০,০০০ টাকার ঊর্ধ্বে ❒

বিভাগ – গ

এই অংশে আপনার স্বামীর শিক্ষা, কর্মসংস্থান এবং পেশা সম্পর্কিত তথ্য জানতে চাওয়া হয়েছে। আপনার স্বামীর জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে টিক চিহ্ন দিন।

আপনার স্বামীর শিক্ষাগত যোগ্যতা

(১) প্রথাগত শিক্ষা নেই ❒
(২) প্রাথমিক শিক্ষা (১-৫ শ্রেণী) ❒
(৩) মাধ্যমিক শিক্ষা (৬-৮ শ্রেণী) ❒
(৪) মাধ্যমিক শিক্ষা (৯-১০ শ্রেণী/এসএসসি) ❒
(৫) উচ্চ মাধ্যমিক শিক্ষা (এইচএসসি) ❒
(৬) স্নাতক ❒
(৭) স্নাতকোত্তর ❒
(৮) অন্যান্য _____

আপনার স্বামীর কোন কৃষি বা অকৃষি **জমি আছে?**

(১) হ্যাঁ, আছে ❒
(২) না, নেই ❒

আপনি যে বাড়িতে থাকেন তার মালিকানা কি আপনার স্বামীর নামে?

আপনার স্বামীর কর্মের ধরন

(১) ঋতু ভিত্তিক/ মৌসুমি ❒
(২) বছরব্যাপী ❒

আপনার স্বামীর কর্মক্ষেত্র

(১) কৃষি ভিত্তিক কাজ ❒
(২) উৎপাদনশিল্প-সংক্রান্ত কাজ ❒
(৩) ক্ষুদ্র শিল্প (হস্তশিল্প, কারুশিল্প, ইত্যাদি) ❒
(৪) ক্ষুদ্র উদ্যোক্তা ❒
(৫) চাকুরীজীবী ❒
(৬) অন্যান্য _____

আপনার স্বামীর উপার্জনের ধরন

(১) মাসিক মজুরি/বেতন ❒
(২) দৈনিক মজুরি/বেতন ❒
(৩) ব্যবসায়িক মুনাফা বণ্টন (অংশীদারের সাথে) ❒

(১) হ্যাঁ ❒
(২) না ❒

(৪) নিজস্ব ক্ষুদ্র উদ্যোগ থেকে মুনাফা ❒
(৫) অন্যান্য _____

আপনার স্বামীর কর্মঘণ্টা

(১) প্রতিদিন ৪ ঘণ্টার কম ❒
(২) প্রতিদিন ৪-৭ ঘণ্টা ❒
(৩) প্রতিদিন ৮ ঘণ্টা ❒
(৪) প্রতিদিন ৯-১০ ঘণ্টা ❒
(৫) প্রতিদিন ১১-১২ ঘণ্টা ❒
(৬) প্রতিদিন ১৪ ঘণ্টা ও এর ঊর্ধ্বে ❒

.**আপনার স্বামীর মাসিক** উপার্জনের পরিমান

(১) ১০,০০০ টাকা ও তার কম ❒
(২) ১১,০০০-১৫,০০০ টাকা ❒
(৩) ১৬,০০০-২০,০০০ টাকা ❒
(৪) ২১,০০০-২৫,০০০ টাকা ❒
(৫) ২৬,০০০-৩০,০০০ টাকা ❒
(৬) ৩১,০০০-৩৫,০০০ টাকা ❒
(৭) ৩৬,০০০-৪০,০০০ টাকা ❒
(৮) ৪০,০০০ টাকার ঊর্ধ্বে ❒

বিভাগ - ঘ

নিচের বিবরণগুলোতে পরিবারে আপনার আর্থিক এবং পারিবারিক বিষয়ে সিদ্ধান্ত নেবার ক্ষমতা এবং স্বাধীনতা বিষয়ক প্রশ্ন করা হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে ১ থেকে ৪ এর মধ্যে টিক চিহ্ন দিয়ে প্রকাশ করুন। যদি আপনার উত্তর অন্যকেউ (৪) হয়, সেই ক্ষেত্রে সুনির্দিষ্টভাবে উল্লেখ করুন। এখানে, **১ = স্বামী, ২ = স্ত্রী, ৩ = স্বামী ও স্ত্রী দুজন একসাথে, ৪=** অন্যকেউ (যেমনঃ বাবা, মা, ভাই, বোন, শ্বশুর, শাশুড়ি, দেবর/ ভাসুর, ননদ/জা ইত্যাদি) বোঝানো হয়েছে। আপনি যদি কোন প্রশ্নের উত্তর প্রদানে অনিচ্ছুক থাকেন তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন।

	স্বামী	স্ত্রি	স্ত্রি স্বামী ও দুজন	অন্যকেউ	সুনির্দিষ্টভাবে উল্লেখ করুন	মন্তব্য নেই
১। আপনার উপার্জন আপনি কীভাবে ব্যয় করবেন, পরিবারে এ বিষয়ে সিদ্ধান্ত কে গ্রহণ করেন?	১	২	৩	৪		
২। স্বামীর উপার্জন কীভাবে ব্যয় করবেন, পরিবারে এ বিষয়ে সিদ্ধান্ত কে গ্রহণ করেন?	১	২	৩	৪		
৩। পারিবারিক অর্থ-বিষয়ক সিদ্ধান্ত আপনার পরিবারে কে গ্রহণ করেন?	১	২	৩	৪		
৪। আপনার পরিবারে কে সাধারণত পারিবারিক সঞ্চয়/জমা/পুঁজি বিষয়ক সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
৫। আপনার পরিবারে কে সাধারণত পারিবারিক সম্পদ ক্রয়ের বিষয়ে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
৬। আপনার পরিবারে কে সাধারণত পারিবারিক ঋণ/ধার বিষয়ে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
৭। ঘরের/গৃহস্থালীর মোটামুটি বড় ধরণের কেনাকাটা/ক্রয়ের বিষয়ে (যেমন: টিভি, ফ্রিজ, ঘরের আসবাবপত্র ইত্যাদি) আপনার পরিবারে সাধারণত কে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
৮। ঘরের/গৃহস্থালীর ছোট্ট ধরণের কেনাকাটা/ক্রয়ের বিষয়ে (যেমন: মুদি দোকানের মালপত্র/নিত্যদিনের প্রয়োজনীয় জিনিসপত্র/কাপড় কেনাকাটা ইত্যাদি) আপনার পরিবারে সাধারণত কে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
৯। প্রতিদিন সাধারণত কী রান্না করা হবে তা পরিবারে সাধারণত কে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		
১০। আপনার স্বাস্থ্য বিষয়ক সিদ্ধান্ত (যেমন: ডাক্তার দেখাতে যেতে হবে কি না), আপনার পরিবারের কে গ্রহণ করেন?	১	২	৩	৪		

১১। আপনাদের সন্তানের স্বাস্থ্য বিষয়ক সিদ্ধান্ত পরিবারের কে গ্রহণ করেন?	১	২	৩	৪		
১২। আপনাদের সন্তানের পড়াশুনা বিষয়ক সিদ্ধান্ত পরিবারের কে গ্রহণ করেন?	১	২	৩	৪		
১৩। আপনাদের সন্তানের বিবাহ বিষয়ক সিদ্ধান্ত পরিবারের কে গ্রহণ করেন?	১	২	৩	৪		
১৪। আপনার পরিবারে বয়স্কদের যত্ন এবং যত্ন বিষয়ক আর্থিক ব্যয় সংক্রান্ত সিদ্ধান্ত কে গ্রহণ করেন?	১	২	৩	৪		
১৫। পরিবারের সদস্য, আত্মীয়স্বজন এবং/অথবা সামাজিক নিমন্ত্রণ যোগদানের বিষয়ে কে সিদ্ধান্ত গ্রহণ করেন?	১	২	৩	৪		

বিভাগ - ঙ

নিচের বিবরণগুলোতে পরিবারে আপনার যাতায়াত অথবা চলাচলের স্বাধীনতা বিষয়ক প্রশ্ন করা হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে ১ থেকে ৪ এর মধ্যে টিক চিহ্ন দিয়ে প্রকাশ করুন। যদি আপনার উত্তর অন্যদের সাথে (৪) হয়, সেই ক্ষেত্রে সুনির্দিষ্টভাবে উল্লেখ করুন। এখানে, **১ =** একা (শুধু নিজে)**, ২ = স্বামীর সাথে, ৩ =** সন্তানের সাথে**, ৪=** অন্যদের সাথে (যেমনঃ বাবা, মা, ভাই, বোন, শ্বশুর, শাশুড়ি, দেবর/ভাসুর, ননদ/জা ইত্যাদি) বোঝানো হয়েছে। আপনি যদি কোন প্রশ্নের উত্তর প্রদানে অনিচ্ছুক থাকেন তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন।

	হ্যাঁ, একা (শুধু নিজে)	না, স্বামীকে সাথে নিতে	না, সন্তানকে	না, অন্যদের	সুনির্দিষ্টভাবে উল্লেখ করুন	মন্তব্য নেই
১। আপনার কি একা একা চিকিৎসক/হাসপাতাল/স্বাস্থ্যকেন্দ্রে যাওয়ার অনুমতি/স্বাধীনতা আছে?	১	২	৩	৪		
২। আপনার কি একা একা আপনার আত্মীয় স্বজনদের সাথে দেখা করার অনুমতি/স্বাধীনতা আছে?	১	২	৩	৪		
৩। আপনার কি একা একা ব্যাংকে যাওয়ার অনুমতি/স্বাধীনতা আছে?	১	২	৩	৪		
৪। আপনার কি একা একা বাজারে /হাটে/শপিং সেন্টারে যাওয়ার অনুমতি/স্বাধীনতা আছে?	১	২	৩	৪		
৫। আপনার কি সন্তানের স্কুলে অথবা স্কুল সভায় একা যাওয়ার অনুমতি/স্বাধীনতা আছে?	১	২	৩	৪		
৬। কাজ ছাড়া কি আপনার বাড়ির বাইরে একা একা ভ্রমণ করার অনুমতি/স্বাধীনতা রয়েছে?	১	২	৩	৪		
৭। আপনার কি সন্ধ্যার পর/রাতের বেলায় বাড়ির বাইরে একা একা ভ্রমণ করার অনুমতি/স্বাধীনতা রয়েছে?	১	২	৩	৪		

বিভাগ – চ

নিচের বিবরণগুলোতে বৈবাহিক সম্পর্কে এবং পারিবারিক দায়িত্ব বণ্টনে সমতা বিষয়ক প্রশ্ন করা হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে ১ থেকে ৪ এর মধ্যে টিক চিহ্ন দিয়ে প্রকাশ করুন। যদি আপনার উত্তর অন্যান্য (৪) হয়, সেই ক্ষেত্রে সুনির্দিষ্টভাবে উল্লেখ করুন। এখানে, **১ =** হ্যাঁ, সবসময়**, ২ =** মাঝেমাঝে, সপ্তাহে/মাসে এক/দুইবার**, ৩ =** না, কখনই নয়**, ৪=** অন্যান্য (যেমনঃ বছরে এক/দুইবার ইত্যাদি) বোঝানো হয়েছে। আপনি যদি কোন প্রশ্নের উত্তর প্রদানে অনিচ্ছুক থাকেন তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন।

	হ্যাঁ	মাঝেমাঝে	না	অন্যান্য	সুনির্দিষ্টভাবে উল্লেখ করুন	মন্তব্য নেই

১। আপনার স্বামী কি গৃহ কর্মে সহায়তা করেন (যেমনঃ বাড়ির কাজ, পরিষ্কার করা, মুদি সদাই অথবা বাজার করা)?	১	২	৩	৪		
২। আপনার স্বামী কি রান্না সংক্রান্ত কাজে সহায়তা করেন (যেমনঃ সবজি/মাংস কাটতে, হাঁড়িপাতিল ধুতে, অথবা রান্না করতে ইত্যাদি)?	১	২	৩	৪		
৩। আপনার স্বামী কি সন্তানদের পড়াশুনায় সহায়তা করেন?	১	২	৩	৪		
৪। আপনার স্বামী কি সন্তান সংক্রান্ত অন্যান্য দায়িত্ব পালনে আপনাকে সহায়তা করেন?	১	২	৩	৪		
৫। আপনার স্বামী কি পরিবারের বৃদ্ধ/বয়স্ক সদস্যদের যত্ন নেওয়ার ক্ষেত্রে আপনাকে সহায়তা করেন?	১	২	৩	৪		
৬। আপনি কি পোশাক পরবেন সেই বিষয়ে কি আপনার স্বামী আপনাকে নির্দেশ প্রদান করেন?	১	২	৩	৪		
৭। আপনার স্বামী কি আপনাকে বোরকা/হিজাব/পর্দা করতে নির্দেশ দেন?	১	২	৩	৪		
৮। কারো সাথে সাক্ষাতে বা বন্ধুত্ব রক্ষার্থে আপনার স্বামী আপনাকে বাঁধা প্রদান করেন কি?	১	২	৩	৪		
৯। আপনি কি ধরনের কাজ/চাকুরী করবেন সেই বিষয় কি আপনার স্বামী ঠিক করে দেন?	১	২	৩	৪		
১০। আপনার স্বামী পারিবারিক দায়িত্ব এবং কাজের/চাকুরীর ছাড়া, অন্যান্য সময়ে (যেমনঃ বন্ধু/বান্ধবীর সাথে দেখা করতে) আপনাকে ঘরের বাহিরে যাবার অনুমুতি দেন?	১	২	৩	৪		

বিভাগ - ছ

নিচের বিবরণগুলোতে ব্যক্তিস্বাধীনতা, ব্যক্তিক্ষমতায়ন এবং আপনার মানসিক ও শারীরিক সুস্থতা বিষয়ক প্রশ্ন করা হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে ১ থেকে ৪ এর মধ্যে টিক চিহ্ন দিয়ে প্রকাশ করুন। যদি আপনার উত্তর অন্যান্য (৪) হয়, সেই ক্ষেত্রে সুনির্দিষ্টভাবে উল্লেখ করুন। এখানে, **১ = হ্যাঁ, ২ = মাঝেমাঝে, ৩ = না, ৪= অন্যান্য বোঝানো হয়েছে।** আপনি যদি কোন প্রশ্নের উত্তর প্রদানে অনিচ্ছুক থাকেন তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন।

	হ্যাঁ	মাঝে মাঝে	না	অন্যান্য	সুনির্দিষ্টভাবে উল্লেখ করুন	মন্তব্য নেই
১। আপনি কি বিশ্বাস করেন যে আপনার স্বামী আপনার কাজে বাঁধা প্রদানের অধিকার রয়েছে?	১	২	৩	৪		
২। আপনি কি মনে করেন যে আপনার ব্যক্তিস্বাধীনতা/ক্ষমতায়নের জন্য আপনার চাকরি বা আর্থিক স্বাধীনতা জরুরী?	১	২	৩	৪		
৩। আপনি কি মনে করেন যে কাজ/চাকুরী ছেড়ে দিলেও, আপনি একইভাবে পারিবারিক সিধান্ত গ্রহন করতে পারবেন এবং স্বাধীনভাবে চলতে পারবেন?	১	২	৩	৪		
৪। আপনি কি মনে করেন যে পারিবারিক সিদ্ধান্ত গ্রহণের ক্ষমতা আপনার ব্যক্তিস্বাধীনতার জন্য জরুরি?	১	২	৩	৪		
৫। আপনি কি মনে করেন যে চলাচলের স্বাধীনতা আপনার ব্যক্তিস্বাধীনতার জন্য জরুরি?	১	২	৩	৪		
৬। আপনি কি মনে করেন যে আপনার সার্বিক কল্যাণের (সুখ/সমৃদ্ধি/সুস্থতা) জন্য, শারীরিক এবং মানসিক সুস্থতা উভয়ই সমান গুরুত্বপূর্ণ?	১	২	৩	৪		

৭। আপনি কি মনে করেন যে ব্যক্তিগত, পেশাগত এবং পারিবারিক জীবনের ভারসাম্যর উপর আপনার সার্বিক কল্যাণ (সুখ/সমৃদ্ধি/সুস্থতা)নির্ভরশীল?	১	২	৩	৪		
৮। সন্তান, স্বামী এবং পারিবারিক দায়িত্ব শেষে আপনি নিজের জন্য সময় বের করতে পারেন কি?	১	২	৩	৪		
৯। আপনি কি চাকুরী এবং/অথবা পারিবারিক দায়িত্ব পালনে ভারসাম্য রক্ষা করতে গিয়ে মানসিক/শারীরিক চাপ অনুভব করেন?	১	২	৩	৪		

বিভাগ - জ

নিচের বিবরণগুলোতে পারিবারিক নির্যাতন (শারীরিক, মানসিক এবং মৌখিক) বিষয়ে আপনার মতামত জানতে কিছু প্রশ্ন করা হয়েছে। আপনার জন্য প্রযোজ্য নিচের তথ্যগুলোর পাশের ঘরগুলোতে ১ থেকে ৩ এর মধ্যে টিক চিহ্ন দিয়ে প্রকাশ করুন। এখানে, **১ = হ্যাঁ, ২ = মাঝেমাঝে, ৩ = না বোঝানো হয়েছে।** আপনি যদি কোন প্রশ্নের উত্তর প্রদানে অনিচ্ছুক থাকেন তবে মন্তব্য নেই ঘরে টিক চিহ্ন দিন।

	হ্যাঁ	মাঝেমাঝে	না	মন্তব্য নেই
১। আপনি কি বিশ্বাস করেন যে স্ত্রী যদি স্বামীর অনুমতি না নিয়ে ঘরের বাইরে যান, তবে স্বামী তাকে মারধরের অধিকার রাখেন?	১	২	৩	
২। আপনি কি বিশ্বাস করেন যে স্ত্রী যদি স্বামীর সাথে শারীরিক সম্পর্কে (যৌনসহবাস) অনীহা প্রকাশ করেন, তবে স্বামী তাকে মারধরের অধিকার রাখেন?	১	২	৩	
৩। আপনি কি বিশ্বাস করেন যে স্ত্রী যদি সন্তানদের প্রতি অমনোযোগী হন, তবে স্বামী তাকে মারধরের অধিকার রাখেন?	১	২	৩	
৪। আপনি কি বিশ্বাস করেন যে স্ত্রী যদি স্বামীর সাথে তর্ক করেন, তবে স্বামী তাকে মারধরের অধিকার রাখেন?	১	২	৩	
৫। আপনি কি বিশ্বাস করেন স্ত্রীর হাতের রান্না পুড়ে গেলে অথবা খারাপ হলে, তবে স্বামী তাকে মারধরের অধিকার রাখেন?	১	২	৩	
৬। আপনি কি বিশ্বাস করেন যে মানসিক নির্যাতন শারীরিক নির্যাতনের মতোই সমান কষ্টদায়ক?	১	২	৩	
৭। আপনি কি কখনও আপনার বর্ধিত পরিবার (যেমনঃ ভাই, বোন, দেবর/ ভাসুর/শ্যালক, ননদ/জা/শালিকা ইত্যাদি), বন্ধুবান্ধব এবং প্রতিবেশীদের মধ্যে কোন মহিলাকে পারিবারিক নির্যাতনের (শারীরিক/মানসিক/মৌখিক) শিকার হতে দেখেছেন?	১	২	৩	
৮। আপনি কি বিশ্বাস করেন যে শ্রমজীবী মহিলারা গৃহবধূদের থেকে অপেক্ষাকৃত কম পারিবারিক নির্যাতনের (শারীরিক/মানসিক/মৌখিক) শিকার হন?	১	২	৩	
৯। গত ১২ মাসে, আপনি কি আপনার স্বামী দ্বারা কখনও শারীরিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১০। গত ১২ মাসে, আপনি কি আপনার স্বামী দ্বারা কখনও মানসিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১১। গত ১২ মাসে, আপনি কি আপনার স্বামী দ্বারা কখনও মৌখিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১২। গত ১২ মাসে, আপনি কি পরিবারের অন্যকোন সদস্যের (যেমনঃ শ্বশুর, শাশুড়ি, দেবর/ভাসুর, ননদ/জা ইত্যাদি) দ্বারা কখনও শারীরিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১৩। গত ১২ মাসে, আপনি কি পরিবারের অন্যকোন সদস্যের (যেমনঃ শ্বশুর, শাশুড়ি, দেবর/ভাসুর, ননদ/জা ইত্যাদি) দ্বারা কখনও মানসিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১৪। গত ১২ মাসে, আপনি কি পরিবারের অন্যকোন সদস্যের (যেমনঃ শ্বশুর, শাশুড়ি, দেবর/ভাসুর, ননদ/জা ইত্যাদি) দ্বারা কখনও মৌখিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	

১৫। আপনার বৈবাহিক জীবনে, আপনি কি আপনার স্বামী দ্বারা কখনও শারীরিক/মানসিক/মৌখিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	
১৬। আপনার বৈবাহিক জীবনে, পরিবারের অন্যকোন সদস্যের (যেমনঃ শ্বশুর, শাশুড়ি, দেবর/ভাসুর, ননদ/জা ইত্যাদি) দ্বারা কখনও শারীরিক/মানসিক/মৌখিক নির্যাতনের শিকার হয়েছেন?	১	২	৩	

বিভাগ - ঝ

যদি বিভাগ – জ এর প্রশ্ন ৯ থেকে ১৬ এর মধ্যে কোন প্রশ্নের উত্তর হ্যাঁ=১ অথবা মাঝেমাঝে=২ হয়ে থাকে, তবে নিচের প্রশ্নটির উত্তর দিন। আপনার কাছে গুরুত্ব অনুসারে প্রশ্নের উত্তরগুলো ক্রমিক নাম্বার প্রদান করুন। ১= প্রধান গুরুত্বপূর্ণ কারন, ২= দ্বিতীয় গুরুত্বপূর্ণ কারন, ৩= তৃতীয় গুরুত্বপূর্ণ কারন, ৪= চতুর্থ গুরুত্বপূর্ণ কারন, ৫= পঞ্চম গুরুত্বপূর্ণ কারন ।

১। আপনি পারিবারিক নির্যাতন (শারীরিক/মানসিক/মৌখিক) মেনে নেন/সহ্য করেন কেন?

বাচ্চাদের কথা/ বাচ্চাদের ভবিষ্যতের কথা চিন্তা করে _____

পারিবারিক চাপের কারণে _____

সামাজিক চাপের কারণে/মানুষ কী বলতে পারে ভেবে _____

সামাজিকভাবে হেয়/তালাকপ্রাপ্ত হিসাবে চিহ্নিত হওয়ার ভয়ে _____

অন্যান্য কোন কারন উল্লেখ করুন _____

এই প্রশ্নমালা পূরণ করার জন্য এবং আপনার মূল্যবান সময়ের জন্য আপনাকে অনেক ধন্যবাদ। আপনার এই প্রয়াস খুবই প্রশংসনীয়। আপনার এই অবদান ভবিষ্যতে বাংলাদেশের নারীদের জীবনের মান উন্নয়নে এবং কল্যাণ প্রসারে সহায়তা করবে বলে আশা করছি।

Appendix B.3
(Nodes created in NVivo for Thematic Analysis)

Area of Autonomy	Description	Files	References
Autonomy (decision-making)			
	able to say no to a HH decision	30	32
	decision making	36	40
	husband solo	32	33
	decision making joint	32	33
	decision making solo	36	39
Autonomy (financial)			
	banking and saving	34	41
	authority	-	-
	control over earning	36	45
	voice in husband	33	37
	earning	-	-
	wife involvement in HH finances	21	32
Autonomy (mobility)			
	exposure to public life	21	28
	mobility restrictions	36	46
	mobility spheres	33	47
	safety concern mobility	30	30
	social stigma (people's perception)	31	41
Autonomy (physical and psychological)			
	direct exposure to domestic abuse	35	56
	indirect exposure to domestic abuse	33	56

Appendix B.4
(Sampling Adequacy and Reliability of IPV Exposure Index)

B.4 Sampling Adequacy and Reliability for IPV Exposure Index

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	
Physical IPV	0.789
Verbal IPV	0.633
Psychological IPV	0.629
Overall KMO	0.664
Cronbach's alpha (α) = 0.766	