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RESHAPING EDUCATIONAL AND ECONOMIC GOALS

Date : 19th & 20th June, 2023

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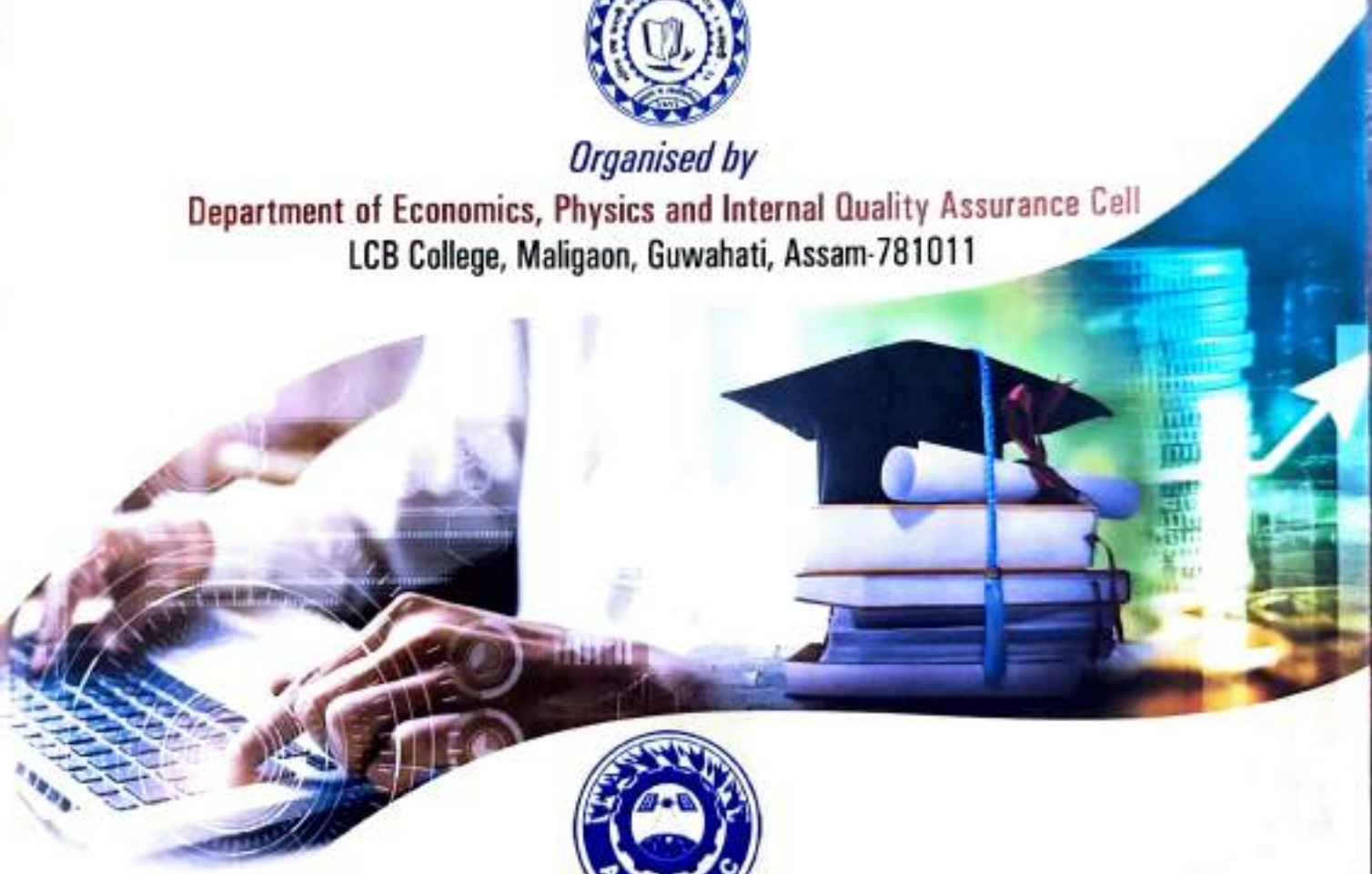
Department of Economics, Physics and Internal Quality Assurance Cell
LCB College, Maligaon, Guwahati, Assam-781011



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Purchase Behavior of Consumers Towards Organic Food Products in India: A Review of Literature

Manalisha Das (Corresponding author)[1]
Dr. Ashifuddin Ahmed Saikia[2]

INTRODUCTION

Globally, consumers are growing more and more concerned with their diets, health, and food quality (Gil et al., 2000). One of the main ways consumers' growing interest in organic food is expressed is through environmental and health consciousness. People worldwide are becoming more conscious of the significance of food components with minimal perceived physiological value, including health and environmental benefits for both humans and animals. The most significant public health challenge in the twenty-first century is considered to be sustainability (American Public Health Association, 2017).

Due to the urgency of creating a sustainable and healthy environment, the current situation has stimulated interest in environmental issues among academics, corporations, the media, governments, and non-governmental organizations. The quantity of food consumed in the majority of developed nations has reached a saturation threshold, and consumer food options are now more varied than in the past. Increased consumer diversification is the outcome. Distribution methods, marketing initiatives, diversification plans, and food quality are becoming more and more crucial in today's oversaturated market climate.

In today's society, consumers are becoming more aware of the harmful effects of chemicals contained in food. The demand for ecologically friendly goods, such as organic foods, has greatly increased because the majority of people are now very worried about their health. Consumer awareness of the drawbacks of non-organic food products is growing. Organic food is produced in a way that respects both the environment and society (Shafiea & Rennieb, 2012). With the growing awareness of concerns like the environment, naturopathy, and the green world, marketers are

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eager to offer organic items. Because people are more concerned with their health and the environment's protection, eco-friendly items are becoming more popular. In order to maximize market share, marketers involved in organic food sales must carefully segment their market. Potential customers of organic food include those who value their health, taste, and environmental protection as well as their ability to enhance their way of life (Paul & Rana, 2012).

Environmental awareness, growing consumer interest in organic foods, and the willingness of customers to pay extra for organic features contribute to business involvement in organic marketing, launching significant changes and developments (Peattie and Crane, 2005). Consumers are affected thoughtfully by increased conscientiousness, and the market for organic products is growing at a significant rate (Bhaskaran et al., 2006).

OBJECTIVES AND METHODOLOGY

The purpose of the study is to evaluate prior research in order to gain better knowledge of Indian consumers' purchasing habits for organic food goods. This paper attempts to look into and investigate the factors affecting the shift in customer preferences toward organic food items. For the goal of this study, the researcher compiled data from other studies conducted across the country. In order to study the available literature, extensive secondary data collection was carried out by reviewing the works published in various reputed journals over the years. In addition to this, annual reports issued by the government of India, various news articles, case studies, and cites in reputed magazines were also studied

ORGANIC FOOD: MEANING AND BENEFITS

Organic foods have been improved to protect food integrity rather than artificial ingredients, preservatives, or radiation. In simple words, food that is grown or processed without the use of pesticides, mineral fertilizers, or any other form of chemicals may be referred to as organic food. According to the Organic Foods Production Act of 1990, "In terms of food that comes from living animals-meat, eggs, and dairy-the animal must not be fed antibiotics or growth hormones" (Organic Foods Production Act, 1990). Therefore, organic foods are generally safe, produced using ecologically and environmentally sound techniques, and do not include genetically modified organisms (GMOs), industrial solvents, or chemical food additives (Paul & Rana, 2012). All previously analyzed requirements that green customers look for are satisfied by organic food products. They ensure the preservation of the ecosystem and all of the natural resources and are secure, healthy, and sustainably produced (Melovic et al., 2020). Organic food products encourage better living and more sustainable use of the environment. It encourages healthy eating and is gradually becoming a movement that supports consuming foods devoid of dangerous chemicals and essential components for a healthy existence (Martinez, 2020).

Organic food is considered to be healthy, it helps in producing healthier and safer food because it is made using natural ways, such as using green manure as soil fertilizer rather than potentially hazardous chemicals. It is also highly nutritious as organic products are given the greatest natural circumstances, including time to grow and fertilizers made from compost, making them extremely nutrient-rich. It contains a greater antioxidant value which gives multiple health benefits including the prevention of many cancer diseases (Gopalkrishnan, 2019). Organic food products are also environmental friendly as it is locally grown and poses very limited interference to the environmental resources that support healthy living.

ORGANIC FOOD MARKET IN INDIA

Over the past ten years, India's agricultural output has increased mostly as a result of increasing fertilizer use and gradual irrigation network enhancements. Between 2000 and 2012, growers put a lot of emphasis on using fertilizers to increase production because of the rise in demand for agricultural food products. According to "India Organic Food Market Forecast & Opportunities 2020," the country's organic food market is expected to grow at a CAGR of more than 25% from 2015 to 2020 (Tech Sci Research, 2015).

The domestic market offers rice, wheat, tea, coffee, lentils, and vegetables that are all organic. Contrarily, additional goods offered for export include cashew nuts, cotton, oilseeds, various fruits, and medicinal herbs. The main routes in the domestic market, which is mostly in metropolitan cities and only accounts for 7.5% of the total organic production, are wholesalers and dealers, supermarkets, and own stores. With the exception of tea, which is produced and exported by tea estates, export businesses serve as the market conduit for organic products. The major markets for Indian organic products are the EU (European Union), the USA (United States of America), Canada, Australia, and Middle East Asian count tries.

Presently India is showing growth in organic food products. Indian customers have been focusing on good health and a balanced diet due to which interest in organic food products is increasing. India produced around 1.24 million MT of certified organic products which includes all varieties of food products such as Vegetables, Pulses, Spices, Tea, Cotton, Oil Seeds, Basmati Rice, Oil Seeds Fruits, and their value-added products (Bhardwaj & Mishra, 2022).

ORGANIC FOOD MARKET IN NORTH-EAST INDIA

Only two North-Eastern States-Assam (11 metric tonnes) and Meghalaya (1 metric tonne), according to data from the Agricultural and Processed Food Products Export Development Authority (APEDA), exported organic products in 2016-2017. Farmers in this area are therefore still far from the export market, which could have helped them get a higher price for their produce, despite the fact that it is a center for organic foods (Mukherjee, 2017).

Assam is known for its legendary monsoons and evergreen forests. It is rediscovering its old farming practices, which support growth that is economically self-sufficient, socially responsible, and environmentally friendly. On their own fields or in their communities, Assamese farmers regularly use organic manure as a source of easily palatable nutrients. Most farmers in Assam raise animals, such as pigs, calves, goats, and other creatures, and they generate enough manure on their farms to enable organic farming. Due to the high market demand for Assam's organically cultivated green tea, several medicinal rice and passion fruits, including Lemon, Joha, and Ukhura rice, are grown there in an organic manner. (Bonia, 2019).

FACTORS AFFECTING THE PURCHASE BEHAVIOR OF CONSUMERS TOWARDS ORGANIC FOOD PRODUCTS

Understanding customer perception can also provide insight into the attitudes and behaviors of potential organic food buyers. (Kumar & Ali, 2011). Past literature has highlighted the positive role that attitude plays (Huang et al., 2004). Major theories like the theory of reasoned action have included attitude as one of their key variables. (Ajzen and Fishbein 1980) and the theory of planned behaviour (Ajzen 1985). Evidence supports that a favorable attitude toward organic foods leads to the satisfaction of consumers (Vermeir & Verbeke, 2006; Kim, 2018; Martinez, 2020). Paul & Rana (2012) discovered a difference between an organic product's and a non-organic product's level of consumer satisfaction. Numerous studies have highlighted the beneficial influence of pleasure in increasing consumers' trust in organic products. (Konuk, 2018; Imaningish; 2019). Martinez (2020) stated that organic food products encourage better living and more sustainable use of the environment. It encourages healthy eating and is gradually becoming a movement that supports consuming foods devoid of dangerous chemicals and essential components for a healthy existence

There is further research that has examined the connection between customer attitudes and their propensity to purchase organic products. (Nguyen et al., 2019; Tandon et al., 2020). Although the relationship between satisfaction with consumer behavior has been widely studied (Ryu and Han, 2010), such studies are few in the field of organic food products (Lu and Chi, 2018; Konuk, 2019). In earlier studies, word-of-mouth (WOM) has also been connected to consumer attitude. (Shih et al., 2013; Lien and Cao, 2014). Word-of-mouth (WOM) is a crucial factor since customers highly value recommendations from friends, family, and coworkers when choosing organic products. (Chakrabarti and Baisya, 2009). Ozguven (2012) investigated the driving forces behind why people choose to purchase organic food. It was discovered that there was a stronger correlation between price and quality than with other criteria.

The goal of consumers to buy organic goods may not necessarily translate into actual purchases. (Singh and Verma, 2017). Discrepancies between consumers' attitude

and actual behaviour have been observed in past studies (Defra, 2006; Hughner et al., 2007; Wheale & Hinton, 2007; Vermeir & Verbeke, 2008). Thus, the literature suggests that other factors such as price and availability could possibly lead to such discrepancies (Singh and Verma, 2017).

Several studies have shown that organic production causes less harm to the environment. Consumers are increasingly getting environmentally conscious and willing to contribute to protecting the environment via any means. (Basha et.al., 2015).

On the other hand, Paul & Rana (2012) observed that consumers have been seen to place a higher value on health issues than other considerations, such as environmental concerns. Studies show that organic food's pesticide concentration is lower than conventionally farmed food's. There is therefore substantial evidence that organic farming reduces the risk to human health. (Joshi & Shrinivas, 2021). The study conducted by (Basha et al., 2015) examined the role that subjective norms play in influencing consumer purchasing decisions, especially in societies with high levels of social contact. People frequently copy their reference group leader, who then persuades the group to adopt a specific conduct or action.

Panjabi & Rashmi (2021) stated that everyone's need to fulfill their wants for food is a universal motivation. The majority of people who buy organic food believe that it has a more natural, potent, and flavorful taste. Organic food products are perceived as high-quality and premium products due to the special way of production methods (Panjabi & Rashmi, 2021). Certified organic foods are generally more expensive compared to conventional foods (Singh and Verma, 2017). Additionally, previous research has shown that consumers who purchase organic goods are less price sensitive and more concerned with quality (Basha, et al., 2015). Organic food products are perceived as high-quality and premium products due to the special way of production methods (Panjabi &Rashmi, 2021). In addition to the usual venues of specialty stores, increased marketing of organic items in regular supermarkets and major retail locations has increased consumer access to organic fruit. In addition to these, socioeconomic characteristics including age, gender, income, and level of education have an impact on customers' decisions to buy organic food items.

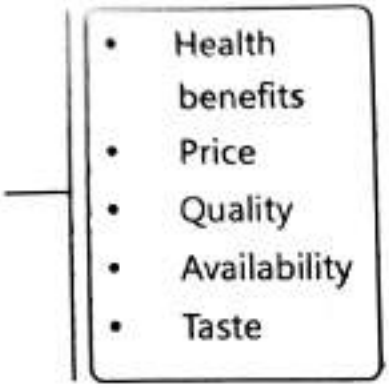
When choosing organic food products, accessibility is a crucial factor. Organic food is readily available, which encourages customers to purchase it. (Paul &Rana, 2012).

CONCLUSION

According to the literature reviews, India's market for organic food items has been expanding quickly in recent years. The key growth drivers for the organic food category are the evolving lifestyles of today's customers, growing health consciousness, higher disposable income, and expanding the number of contemporary retail stores around the nation. The creation of organic food is greatly

influenced by customer purchasing habits, whilst the expansion of this industry is largely driven by rising consumer demand across the country. Domestic sales have only recently begun to rise as well, and the organic industry is expanding overall with metropolitan areas rising faster than rural ones.

Based on the past studies reviewed, the following theoretical framework has been proposed



According to the studies, people are increasingly choosing organic food items due to growing worries about health problems and food safety. Because they are more expensive than non-organic alternatives, people are deterred from buying larger quantities of organic goods. According to several studies, those with higher incomes are more inclined to purchase organic goods. The degree of consumer happiness varies between organic and non-organic products, and contentment has the greatest impact on consumers' intentions to buy and suggest organic products. Numerous studies have highlighted the beneficial influence of pleasure in increasing consumers' trust in organic products.

However, the researcher has come across very few studies related to the perception or preferences of consumers towards organic food products especially in the northeastern region of India. Though some studies have been done on organic farming and organic tea growers in Assam, they do not provide much information regarding customer preferences. Considering the above, there is a need for more research in this area so that necessary steps can be taken to develop the market for such products in the northeastern region.

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Title: Assessing willingness to pay dynamics at a World Heritage Site of India: a stated preference approach

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Abstract: Manas National Park (MNP) is a World Heritage Site in Assam, India. It holds immense conservational significance due to its ecological biodiversity. Despite accomplishing notable conservation success, the lack of adequate and timely funds is a constant burden for the management. Therefore, this study aims to assess the willingness to pay (WTP) of MNP visitors and identify the important determinants and attributes so that the key action areas could be identified for better tourism management and improved earnings. Based on the contingent valuation method, the study employed the payment card approach on 178 park visitors to elicit their WTP responses. Although tourism in MNP is still at an early stage, it was observed that the visitors place considerable value to the preservation of the park. Loyalty, environmental disposition, and concern for MNP were observed to be strong positive determinants of visitors' WTP. In addition, infrastructure, services/facilities, and cost emerged as the crucial attributes of the park.

Keywords: protected-area; national park management; contingent valuation; revenue generation; financial sustainability; pricing policy; India.

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Assessing willingness to pay dynamics at a World Heritage Site of India: a stated preference approach

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Abstract: Manas National Park (MNP) is a World Heritage Site in Assam, India. It holds immense conservational significance due to its ecological biodiversity. Despite accomplishing notable conservation success, the lack of adequate and timely funds is a constant burden for the management. Therefore, this study aims to assess the willingness to pay (WTP) of MNP visitors and identify the important determinants and attributes so that the key action areas could be identified for better tourism management and improved earnings. Based on the contingent valuation method, the study employed the payment card approach on 178 park visitors to elicit their WTP responses. Although tourism in MNP is still at an early stage, it was observed that the visitors place considerable value to the preservation of the park. Loyalty, environmental disposition, and concern for MNP were observed to be strong positive determinants of visitors' WTP. In addition, infrastructure, services/facilities, and cost emerged as the crucial attributes of the park.

Keywords: protected-area; national park management; contingent valuation; revenue generation; financial sustainability; pricing policy; India.

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1 Introduction

National parks are very crucial for conservation of biodiversity and important natural ecosystems. The International Union for Conservation of Nature (IUCN) also recognises recreational and tourism activities as important tasks of national parks for economic development and also as a means to create awareness among people regarding the significance of conservation. The national parks attract huge number of visitors every year. In fact, nature-based tourism has emerged as an important tourism segment. The governments in developing countries face many public priorities (Aseres and Sira, 2020). They often fail to provide adequate funds for conservation or effectively address the problems of such areas (Walpole et al., 2001). In such cases, the economic benefit derived from tourism is of crucial importance. The tourism earnings help to mitigate the conservation and maintenance costs and also provide economic opportunities to the local people (Mariki, 2016).

From recreational perspective, many authors have suggested that charging higher visitation charges is essential for higher revenue earnings. Casey and Schuhmann (2019) also opined that charging the users of recreational services is reasonable according to the 'user pays' principle. In many ways, higher charges act as a safeguard against possible exploitations and degradation (Lal et al., 2017; Wells, 1997). However, most national parks do not earn enough from visitation charges to meet the conservational expenses (Lundberg et al., 2019). Significant additional income from user fees could lead to more financial sufficiency and help the administration in better management and conservation of the area. In this regard, studying visitors' willingness to pay (WTP) holds immediate relevance for designing appropriate pricing policies (Togridou et al., 2006).

With this consideration, the present study is an effort to assess the visitors' WTP at Manas National Park (MNP) of Assam. This study contributes to the relevant literature by identifying the determinants and the attributes playing a significant role in influencing WTP. The MNP has a core area of 950 square kilometres (Choudhury, 2015). The park has immense conservational significance due to its ecological biodiversity. After Kaziranga National Park (KNP), MNP is the only other place in Assam which enjoys the World Heritage Site tag. Located at the foothills of Himalaya (26°43′N to 90°56′E) and connected to the Royal MNP of Bhutan, the biodiversity hotspot is a not only a Project Tiger Reserve, but also an elephant reserve, biosphere reserve and an important birding area. MNP is home to 22 of India's most threatened mammal species and is well known for some of the rare wildlife such as the Golden Langur, Bengal Florican, Hispid Hare, and the Pygmy Hog to name a few. There are about 60 mammals, 42 reptiles, 7 amphibians, and 500 bird species. Out of these, 26 species are threatened worldwide (UNESCO, n.d.).

MNP is a popular tourist destinations and is second in terms of total visitors among the national parks of Assam (Saikia, 2021). The park has gained considerable reputation due to its conservational achievements in the recent past. Situated around 180 km from Guwahati and near the Manas River, MNP is generally open for tourists during November to April every year. The park is divided into three ranges – Panbari range (western range), Bansbari range (central range) and Bhuyanpara range (eastern range). The Bansbari range attracts the major chunk of the tourists. Tourism activities include jeep safari, elephant safari, rafting, birding, and sightseeing. The current fee per visitor is very minimal at INR100 and INR650 for Indians and foreigners respectively. There are other incidental charges for vehicle toll, guard fee, photography and videography. But

only entry fee can be effectively appropriated on per visitor basis. Safari vehicle charges are additional per vehicle and are paid to the service providers which are private parties.

Due to ethnic unrest in the region during the late 1990s, MNP had sustained severe damages. For security reasons, tourism at the park was not allowed from 1989 to 2005. During that period MNP went through heavy threats from poaching, encroachment and terrorist activities. Consequently, it lost its World Heritage Site status in the year 1992 and was declared a World Heritage Site in Danger. Gruelling efforts by the local NGOs, the park authority and the local communities through various campaigns, awareness programmes and successful conservation efforts helped the park to bring back its past glory. In 2011, due to significant recovery, it was withdrawn from the list of World Heritage Site in Danger (UN News, 2011). In the year 2019–2020, the park spent an amount of INR1.90 lakh for research and development and INR0.75 lakh on awareness and educational campaigns while a sum of INR5.43 lakh was used for community welfare in the area (Saikia, 2021).

Despite accomplishing notable conservation success in the past, the prevailing situation in MNP is yet to be satisfactory. Serious problems exist in the form of poaching, smuggling and land encroachment in the park. The World Heritage Committee has shown grave concern on these issues and has warned the park authorities to take corrective action to avoid being inscribed as a World Heritage Site in Danger again (Choudhury, 2016). Lack of adequate and timely funds is also a constant burden for the park management.

Considering these, there is a need for better management of the park areas and its buffer zone. A sound policy framework with strict control is crucial for the purpose. With limited revenue, untimely and inadequate government support, the task at hand is difficult. If revenue earned from tourism could be improved, it will be a potential source for financial stability for the park. High consumer WTP will help to justify an increase in prices for the visitors. Further, higher earnings due to increased fee could be retained adequately to meet the management expenses during the time of low tourist arrivals or unforeseen situations like the present pandemic. However, unreasonably high prices may cause dissatisfaction and discourage visitors. Hence, analysing the determinants of WTP at MNP could be valuable for future strategic decisions. Therefore, this study aims to determine the factors influencing WTP for setting an appropriate entry fee level to increase revenue.

Previous literature suggest that people hold high WTP for protected areas and such areas are constantly trying to raise entry fees as a strategic move to meet the increasing costs of maintenance (Mach et al., 2020). Studies concerning visitors' WTP are very few in the north-eastern part of the country (Saikia and Goswami, 2018, in press). To the researchers' knowledge, no such study has been conducted in MNP so far. The rest of the paper is organised as follows: Section 2 provides a review of relevant literature in the field. Section 3 highlights the methodology adopted for the survey. Section 4 illustrates the respondents' profile and describes as well as discusses the main findings of the study. Finally, Section 5 presents the main conclusions.

2 Literature review

National parks hold considerable value to the society whether it is use value or passive value (Wells, 1997). Economists argue that in the absence of any economic value or price, natural resources are used inefficiently and irrationally. When such non-market goods are assigned some value and integrated into the economic system, they will be used more judiciously (Lescuyer, 1998). However, all the benefits of a national park cannot be quantified effectively using traditional means since national parks are public goods and are non-market in nature (Entorf and Jensen, 2020; Hwang et al., 2019).

As such, economists have developed various estimation methods which can be generally categorised as direct and indirect methods or stated preference methods and revealed preference methods (Schumann et al., 2016; Venkatachalam, 2004). These economic valuation techniques help to quantify the benefits derived from national park and other ecosystem services. The estimates obtained through these methods helps to suggest policy measures to maximises benefits and minimises costs. However, studies concerning environmental valuation are very few in developing nations (Resende et al., 2017). Also, the valuable information obtained through such studies have not been given due consideration by the authorities managing natural resources (Garrod, 2002).

In terms of income generation, the fees and charges in protected areas are usually very low and capture very little of their value placed on them by visitors (Eagles, 2002; Garrod, 2002). They are seldom sufficient to cover the administrative and conservation costs (Maynard et al., 2019). Empirical results from other national parks indicate substantial scope for raising the fees since the visitors' WTP are significantly more than the prevailing charges (Thapa et al., 2017). Economic valuation techniques such as CVM can help ascertain this untapped consumer surplus and support the authorities in identifying optimal fee levels (Garrod, 2002) and making strategic decisions to generate more funds for conservation.

CVM is a widely used stated preference method of valuing national parks and other non-market commodities (Resende et al., 2017; Rodella et al., 2019; Tonin, 2019). CVM gained international popularity particularly after 1989 (Hoyos and Mariel, 2010) and over the course of time, its use has progressed from damage assessment to environmental protection (Baral et al., 2008). CVM constructs hypothetical market situation for a non-market goods and elicit monetary values in the form of peoples' maximum WTP or willingness to accept (WTA) to determine individual preferences (Garrod, 2002; Lescuyer, 1998) and the value of a public good or environmental amenity (Xu et al., 2020). The respondents base their WTP responses on the scenario and information provided during the survey. On the basis of the mean WTP amount, the non-use benefits of the product are ascertained (Xu et al., 2020). The distinct ability of CVM to create hypothetical markets makes it a preferred choice for non-market goods (Hwang et al., 2019; Tonin, 2019) and to capture non-use benefits (Maynard et al., 2019).

Despite the criticisms regarding methodological issues (Cook et al., 2018; Entorf and Jensen, 2020), the usefulness of CVM in WTP surveys for public goods has been widely accepted (Carson, 2000). Many international studies have used this method in the valuation of national parks and other protected areas (Hwang et al., 2019; Liu, 2020) and to estimate optimal fee level for visitors (Witt, 2019; Aseres and Sira, 2020; Saikia, 2021). Literature suggests that CVM is regarded as a better method of valuation compared to the travel cost method (TCM) which is a revealed preference method (Hwang et al., 2019) due to its flexibility and robustness in assessing visitor preferences

(Garrod, 2002). Further, the Blue Ribbon Panel of the National Oceanic and Atmospheric Administration (NOAA) had also recommended several measures which will help to increase the reliability and efficiency of CV surveys (Arrow et al., 1993).

In order to make effective decisions, it is important to analyse both the behavioural as well as economic factors affecting WTP (Lal et al., 2017; Saikia, 2021). Researches on WTP determinants have received ample consideration (Xu et al., 2020) and the authorities can use the information derived from such studies to segment the different target groups. Socio-economic and demographic factors are important elements in most CV studies. Income, in most cases, shows positive influence since willingness of a person to pay strongly depends upon his or her ability to pay (Majumdar et al., 2011; Reynisdottir et al., 2008). Some other factors that influence a persons' WTP are cost of the trip (Mmopelwa et al., 2007; Togridou et al., 2006), size of the travel group (Majumdar et al., 2011), number of family members (Abedini et al., 2016), marital status (Abedini et al., 2016; Kamri, 2013), distance to the site (Lee and Han, 2002) and length of stay (Sekar et al., 2014). Since these factors are often associated with higher expenses and lower disposable income, they usually tend to show inverse relation with WTP. However, contradictory results were reported in few studies, for example, Lee and Han (2002) noticed that national parks located in more remote areas have higher use values, whereas, Bal and Mohanty (2014) observed that visitors who were married were willing to pay more.

Another important determinant is education and its positive affect on WTP is evident in many studies (Chaudhry and Tewari, 2006; Hakim et al., 2011; Reynisdottir et al., 2008). Kamri (2013) explains that education has a more significant and lasting effect on a persons' WTP compared to income. Higher WTP is also commonly witnessed in case of international visitors compared to the domestic ones (Maharana et al., 2000a, 2000b; Ransom and Mangi, 2002). Such differences could arise due to the substantially high income level of foreign visitors or their environmental awareness (Saikia and Goswami, in press).

Environmental awareness and behaviour is a common variable in WTP surveys. Peoples' environmental attitude has been identified as a strong determinant (Hadker et al., 1997; Platania and Rizzo, 2018; Reynisdottir et al., 2008) along with environmental concern (Baral et al., 2008; Togridou et al., 2006). Although, concern for environment may strongly affect customer attitude or purchase intention (Kumar et al., 2020; Saleki et al., 2020), Le et al. (2019) argued that it may not always reflect in their purchase behaviour. Holden and Linnerud (2010) observed that the behaviour of green respondents do not significantly differ from others. But they found that positive environmental attitude can indirectly influence people's WTA for structural changes by authorities. Visitors who contribute or belong to any environmental organisation are also more likely to show positive WTP in general (Bruner et al., 2015). Some authors advocate that higher environmental consciousness do encourage higher WTP (Bruner et al., 2015) and, thus, the need for spreading information and awareness has been strongly suggested (Togridou et al., 2006). Although in the context of green enterprises, Le et al. (2019) also suggested the use of more effective methods to describe and persuade consumers regarding green features of a product.

Visit experiences (Hakim et al., 2011) and visit satisfaction (Baral et al., 2008) is also closely related with visitor WTP. Generally, quality of a product is closely associated with customer satisfaction and loyalty (Phuong et al., 2020). Togridou et al. (2006)

evaluated the perception of visitors towards the level of infrastructure and services offered. People normally tend to compare the existing prices to the provided infrastructure and services while making payment decisions (Mmopelwa et al., 2007; Togridou et al., 2006). Satisfaction tends to exert strong impact on loyalty and future visit intention (Bosque and Martin, 2008). Previous visits and loyalty can also increase the probability of WTP for a particular site (Majumdar et al., 2011; Reynisdottir et al., 2008). Nonetheless, considering the individual characteristics and uniqueness of a park, the WTP determinants may not be consistent across different national parks and other new variables may emerge as significant.

3 Methodology

3.1 Survey design and instrument

For the purpose of the study, an on-site survey of visitors at MNP was conducted during the months of January and February 2019. The survey was primarily done in the Bansbari range of the park since it is the Central Range and records the major chunk of the total visitors. Literature suggests that face to face survey method is more comfortable for visitors in public areas (Deng et al., 2017; Xu et al., 2020). It helps in ensuring maximum participation because the objectives and the importance of the study can be explained in a better and more convincing manner. A structured questionnaire was prepared and administered on the visitors using convenience sampling. In order to get more informed responses in the light of perceived quality and satisfaction level, the visitors were approached only after the completion of their safari. Every third vehicle exiting the park was intercepted at the main entry gate. Since WTP surveys involve questions regarding payment behaviour of people, hence, only adults with income sources were approached for their responses. In case of groups, the head of the family or the group leader was requested to respond. A total of 250 questionnaires were administered out of which 178 were complete and could be used for analysis.

Table 1 Internal consistency reliability results

Construct	*N items*	*Cronbach's alpha*
Satisfaction	4	0.890
Environmental disposition	7	0.758
Loyalty towards MNP	2	0.826
MNP attributes	14	0.853
All items	35	0.922

The survey instrument primarily consisted of close-ended questions. It included questions regarding visitors' socio-economic profile, their satisfaction, loyalty, preferences, attitude, awareness, as well as information related to their trip. The framework suggested by Togridou et al. (2006) provided important insights while designing the questionnaire. In the present study, loyalty towards MNP was measured using two items – revisit intent and intention to recommend (Bosque and Martin, 2008) while environment disposition was measured using a scale adopted from Hadker et al. (1997). Satisfaction was also measured using a scale adopted from Bosque and Martin (2008) which is an adaptation of

the scale proposed by Oliver (1997). A five-point Likert scale was used for all the statements, 1 being strongly disagree and 5 being strongly agree. The mean score was calculated for each of the variable. Satisfaction towards park attributes was also analysed and the attributes were selected based on Jayasinghe et al. (2015) and responses received during the pilot survey. The internal consistency reliability of the instrument was measured using Cronbach's alpha. The reliability was observed to be above the recommended level of 0.7 in all the cases as shown in Table 1.

3.2 Contingent valuation scenario

The present study is based on the framework of contingent valuation method (CVM) to examine the visitors' WTP for higher entry fee for MNP. The CV approach was chosen because it is not only simple and flexible, but it is also less expensive in collecting WTP information. It facilitated the construction of a hypothetical scenario that the park authorities are contemplating a hike in the current entry fee to generate more revenue for conservation of MNP. After briefly describing the features and current problems of MNP, visitors were asked whether they will be willing to pay an amount higher than the existing entry fee. They were explained that the current fees are very nominal and the additional amount generated from higher fees could help in improving the financial sustainability and conservation efforts of the park.

Reasonable care was applied to reduce the possible survey related biases. In order to reduce hypothetical and scope bias, the scenario was carefully explained to the respondents and they were encouraged to give honest responses. Those who responded positively were asked to state their maximum WTP amount over and above the existing entry fee. For this purpose, the payment card method was used where the respondents were asked to indicate their preferred amount from a series of amounts specified to them (Thur, 2010). It is argued that when presented with a narrow range, people are likely to feel constrained in their responses. Since previous literature indicates WTP to differ widely among the studies (Borzykowski et al., 2018), the range of the specified amounts was kept adequate enough starting from Rs.10 up to Rs.1,000 in order to reduce range bias (Reaves et al., 1999). This method is popular (Walpole et al., 2001; Xu et al., 2020) and easier to use as it puts less cognitive pressure on the minds of the respondents (Soeteman et al., 2017). It also helps to make more conservative estimates since it curtails strategic overstatement of WTP amounts (Venkatachalam, 2004). The WTP responses were used to obtain the mean and median WTP amount of the visitors to MNP. The study adopted a conservative interpretation based on Thur (2010), and considered the stated WTP amounts to be the maximum WTP of respondents.

3.3 Logistic regression

In the present study, the WTP for a higher entry fee was specified as the dependent variable with two distinct choices 'yes' and 'no'. Hence, the significant determinants of WTP were analysed using the binary logistic regression method which is considered more suitable in such cases where the dependent variable is dichotomous in nature (Lee and Han, 2002). The logistic model used in the study can be depicted using the following equation:

$$P(WTP=1)=\frac{1}{1+e^{-(\beta_0+\beta_1X_2+\beta_2X_2+\ldots+\beta_nX_n)}}=WTP_i \tag{1}$$

Here, WTP_i is the probability of the event that the ith respondent is willing to pay higher entry fee and its value ranges between 0 and 1. The log-odds ratio (L_i) in favour of a person being willing to pay a higher entry fee at MNP is expressed as:

$$L_i=\ln\frac{WTP_i}{1-WTP_i}=\beta_0+\beta_1X_2+\beta_2X_2+\ldots+\beta_nX_n+e \tag{2}$$

Here, e is the error term. B_0 is the model intercept and β_1 to β_n are the slope coefficients. X denotes the independent variables in the model. The optimum least square (OLS) method is not suitable in the present case since it will be affected by problems such as heteroscedasticity. Logistic regression is widely used in CV studies due to its suitability and relative simplicity (Lee, 1997) and it can be effectively used to study the relationship of different variables with the WTP choice of the visitors. The present study yielded fairly consistent results in terms of the theoretical expectations as interpreted from past literature.

4 Results and discussion

Majority (82%) of the respondents were domestic tourists comprising of both locals from Assam (41.6%) and from other Indian States (40.4%). Only 18% of the respondents were foreign visitors. The visitors were primarily males (87%). This could be attributed to the sampling consideration of including only the head of a family or the leader of a group in the survey. The survey observed that around 32.7% of the visitors were between 31–40 years of age whereas 26.4% respondents were aged below 30 years. Thus, most of the visitors to MNP are on the younger side.

In terms of education, majority of the visitors had a graduate degree or lower qualification (62.4%) and remaining 37.6% were postgraduates or had higher qualification. Almost 65% respondents were married. In terms of family size, most of them stated a family size of 4–5 members (46%) followed by 2–3 members (40.4%). Almost 65% respondents were employed in some government or private organisation with majority (37.6%) being private sector employees. Only 19% were engaged in business or profession and rest 8.4% in some other occupation. Comparing the income categories of the visitors, approximately 35% of them reported a monthly average income of INR25,000–50,000 or USD601–900. This was followed by nearly 33% visitors who earned above INR75,000 or USD1,200 and about 21.6% who earned income of INR50,001–75,000 or USD901–1,200. Only 35.4% of the respondents reported that they have NGO membership or have donated money to any NGO or environmental organisation in the past.

The study had a good response rate of 71.2% due to the on-site nature of the survey and rigorous data collection procedure. A high response rate helps to strengthen the validity of the WTP estimates (Thur, 2010). Further, the WTP responses of both domestic and foreign visitors were very encouraging. As much as 80.8% of the Indian respondents and around 78.1% of the foreign visitors stated that they were willing to pay higher if entry fee is raised. The domestic visitors stated an average WTP of INR130 over and

above what the park was charging. The mean additional WTP of the local visitors from Assam at INR101 was relatively lower than the visitors from other Indian states who are willing to pay an additional INR160 over the current fee level. The higher value attributed to MNP by the visitors from other Indian states may be due to distance of the park from their homes. Since the park is more distantly located and the chances of revisit are lower compared to the local visitors, they may be willing to pay more. On the other hand, the locals showed greater revisit intention which could have influenced their lower WTP amounts. As expected, the foreigners stated the highest WTP amounts among the three visitor groups with a mean additional WTP of around INR373. Since most of the foreign visitors to the park belong to developed countries, their high WTP can be attributed to their higher income and awareness levels compared to Indian citizens. The higher WTP of foreigners is also consistent with past literature (Maharana et al., 2000a, 2000b; Saikia and Goswami, in press).

The median WTP amounts of the Indian and foreign visitors over and above the current entry fees were INR100 and INR350 respectively. Since it minimises the effect of extreme responses, the median is regarded as a more conservative measure of WTP (Carson, 2000; Stigler, 1973). During the year of the survey, i.e., 2018–2019, MNP registered 42,340 domestic and 650 foreign visitors. By aggregating the WTP figures to the total visitors it is observed that MNP could have potentially earned an additional revenue of around INR44,61,500 during that period if the entry fee was hiked in line with the median WTP. It amounts to a significant increase of about 42% of the actual proceeds of that year. The high WTP observed among the park visitors could be helpful in addressing any doubts or fear regarding negative implications of a fee hike on visitation level. The findings present a positive picture and could motivate the concerned authorities to consider reviewing the existing pricing policy for a more realistic and efficient fee structure.

Despite the high WTP observed among the MNP visitors, it is important to understand the underlying factors that could be influential in the formation of their WTP. For effective policy measures, identifying the key determinants or decision areas could benefit the concerned authorities while prioritising the potential action areas. This could be crucial for focusing their valuable efforts in the right direction. Table 2 highlights the results of the logistic regression model where the various socio-economic factors are analysed for any significant impact on the WTP choice of the park visitors. Overall, among the socio-economic factors, only education level and NGO membership/donation were significantly influencing visitors' WTP decision for higher entry fee at the 5% level. As the findings suggest, the graduates or those with lower education qualification have lower likelihood of WTP compared to the reference group, i.e., 'postgraduates or higher qualification'. Thus, education was found to be a strong determinant of visitors' WTP choice at MNP. It emphasises the role that proper education can play in encouraging positive WTP behaviour among the people. Similar positive relationship could also be observed for the variable 'NGO membership/donation'. The results indicate that the reference group, i.e., members of any NGO/environmental organisation or those who contribute to such organisations are more likely to say 'yes' compared to those who do not have any NGO membership or donation history. This could be unmistakeably due to the higher environmental consciousness among such people.

Table 2 Socio-economic factors affecting WTP (logistic regression results)

Variables	*B*	*SE*	*Wald*	*df*	*Sig.*
Domicile			0.253	2	0.881
Assam	–38.627	12,198.342	0.000	1	0.997
Other Indian States	0.446	0.887	0.253	1	0.615
Gender (female)	1.319	0.950	1.930	1	0.165
Age	–0.014	0.027	0.282	1	0.595
Marital status (single)	1.169	0.675	3.003	1	0.083
Family size	0.009	0.181	0.002	1	0.962
Income			1.532	3	0.675
Up to INR25,000 or USD600	–19.927	6,737.225	0.000	1	0.998
INR25,001–50,000 or USD601–900	–19.003	6,737.225	0.000	1	0.998
INR50,001–75,000 or USD901–1,200	–19.289	6,737.225	0.000	1	0.998
NGO membership/donation (no)	–4.326	1.227	12.425	1	0.000**
Distance from place of residence			1.735	3	0.629
Up to 500 km	–18.360	10,169.038	0.000	1	0.999
501–1,500 km	–17.517	10,169.038	0.000	1	0.999
1,500–2,500 km	–19.026	10,169.038	0.000	1	0.999
Education (graduate or below)	–1.673	0.718	5.430	1	0.020**
Occupation			0.518	3	0.915
Government sector	–0.595	1.015	0.344	1	0.558
Private sector	–0.483	0.939	0.265	1	0.607
Business/self-employment	–0.740	1.045	0.501	1	0.479
Constant	44.085	12,198.342	0.000	1	0.997
–2 log likelihood		111.238			
Nagelkerke R^2		0.452			
Omnibus test of model coefficients chi-square		56.947(p-value = 0.000)			
Hosmer and Lemeshow test chi-square		4.013 (p-value = 0.856)			

Note: **significant at 5% significance level.

On the other hand, when other visitor and visit related factors were included in the model, the socio-economic factors no longer showed significant impact on the WTP choice of visitors. As presented in Table 3, only three variables were observed to be significantly affecting the WTP decision of the visitors at the 5% level namely, loyalty towards MNP, environmental disposition, and stated concern for MNP. The behaviour of these three factors in MNP is consistent with the past literature and theoretical expectations. The significant positive relationship of these three variables suggest that peoples' WTP can be positively influenced if steps are taken to improve people's loyalty, and concern for the park and also their environmental disposition. The results in Table 3 are obtained after running a stepwise regression to improve the model estimations.

Table 3 Visitor and visit related factors affecting WTP (logistic regression results)

Variables	*B*	*SE*	*Wald*	*df*	*Sig.*
Loyalty towards MNP	2.680	0.967	7.686	1	0.006**
Environmental disposition	9.147	2.605	12.327	1	0.000**
Stated concern for MNP			6.185	2	0.045**
Low	–5.935	2.807	4.469	1	0.035**
Medium	–2.163	2.241	0.932	1	0.334
Gender (female)	24.409	7,866.905	0.000	1	0.998
Constant	–37.356	10.906	11.731	1	0.001
–2 log likelihood	23.810				
Nagelkerke R^2	0.890				
Omnibus test of model coefficients chi-square	117.209 (p-value = 0.000)				
Hosmer and Lemeshow test chi-square	0.734 (p-value = 0.999)				

Note: **significant at 5% significance level.

Both loyalty and environmental disposition indicated a positive coefficient which means that higher loyalty and environmental disposition increases the likelihood of positive WTP among the visitors. It is accepted that loyalty is a by-product of satisfaction; and loyalty grows as the satisfaction level increases. Considering this, the park should constantly thrive to provide better recreational experience to the visitors. Thus, understanding the expectations, preferences, and satisfaction level of the visitors can be valuable for future planning and development. Moreover, the importance of repeat visitors should not be ignored in the tourism sector. Loyal visitors are also more likely to generate word of mouth publicity for a destination which can attract more visitors in the long run.

In case of stated concern for the park, it was observed that those with 'low' and 'medium' concern for the park are less likely to show WTP compared to those with 'high' concern. Among them, only those with 'low' concern showed significant relationship with WTP. There are, however, instances in previous WTP studies where environmental concern was not observed to be as influential (Lal et al., 2017), yet it is reasonable to believe that a positive environmental attitude or consciousness will be favourable for the park. Although, a very small proportion of the visitors had NGO affiliation/donation history, but their positive attitude and WTP helps to support the findings regarding the positive role of park concern and environmental disposition. The attitude and concern of the people can be positively influenced through more awareness programmes that highlight the importance and benefits of environmental protection and wildlife conservation. Literature also supports that educating the people can have long lasting positive implications on peoples' attitude. Publicising the problems of the park as well as the efforts undertaken and achievements made by the concerned authority could effectively direct the peoples' behaviour in a positive direction.

As discussed earlier, the strong positive effect of loyalty on visitors' WTP suggests improving the tourism quality at the park to enhance the satisfaction of visitors. This may subsequently lead to increase in their revisit and recommend intentions which are essential elements of loyalty. Although, visit satisfaction as a whole was not observed to be a significant factor in the regression model, it is expected that additional insights will

help the authorities in identifying the priority areas for effective policy measures. Keeping this in mind, the study sought to analyse further and explore the satisfaction towards individual attributes of MNP. For this purpose, binary logistic regression was run to identify the significant park attributes influencing the likelihood of visitors' WTP. As shown in Table 4, only three park attributes were observed to be affecting visitors' WTP decision at 5% level of significance. They are park infrastructure, services/facilities, and cost.

Table 4 Effect of satisfaction towards MNP attributes on WTP (logistic regression results)

Variables	*B*	*SE*	*Wald*	*df*	*Sig.*
Safari quality			0.746	2	0.689
Dissatisfied	0.712	1.333	0.286	1	0.593
Neutral	–0.413	0.661	0.391	1	0.532
Infrastructure			8.963	2	0.011**
Dissatisfied	–2.402	0.946	6.442	1	0.011**
Neutral	–1.446	0.577	6.283	1	0.012**
Services/facilities			6.096	2	0.047**
Dissatisfied	2.270	1.520	2.229	1	0.135
Neutral	–0.921	0.553	2.776	1	0.096
Information			0.747	2	0.688
Dissatisfied	0.092	0.885	0.011	1	0.918
Neutral	–0.412	0.555	0.551	1	0.458
Ticketing			0.183	2	0.913
Dissatisfied	–0.782	2.227	0.123	1	0.726
Neutral	0.167	0.768	0.047	1	0.828
Safety (dissatisfied)	0.068	0.675	0.010	1	0.920
Cleanliness			4.009	2	0.135
Dissatisfied	–2.067	1.117	3.426	1	0.064
Neutral	0.297	0.630	0.222	1	0.638
Cost			9.378	2	0.009**
Dissatisfied	–2.182	0.971	5.052	1	0.025**
Neutral	–1.557	0.566	7.565	1	0.006**
Accommodation			1.380	2	0.502
Dissatisfied	–0.401	1.941	0.043	1	0.836
Neutral	–0.709	0.606	1.366	1	0.242
Food options			0.057	2	0.972
Dissatisfied	–0.043	0.693	0.004	1	0.951
Neutral	0.120	0.715	0.028	1	0.866
Transportation			2.335	2	0.311
Dissatisfied	1.643	1.089	2.276	1	0.131
Neutral	0.219	0.610	0.129	1	0.720

Note: **significant at 5% significance level.

Table 4 Effect of satisfaction towards MNP attributes on WTP (logistic regression results) (continued)

Variables	*B*	*SE*	*Wald*	*df*	*Sig.*
Local people hospitality			1.604	2	0.448
Dissatisfied	–21.892	40,192.97	0.000	1	1.000
Neutral	–2.424	1.914	1.604	1	0.205
Constant	3.463	0.632	30.011	1	0.000
–2 log likelihood		122.363			
Nagelkerke R^2		0.417			
Omnibus test of model coefficients chi-square		54.104 (p-value = 0.000)			
Hosmer and Lemeshow test chi-square		7.568 (p-value = 0.372)			

Note: **significant at 5% significance level.

The results indicate that those visitors who were dissatisfied and neutral with respect to the infrastructure of the park are less likely to be willing to pay a higher entry fee than those who were satisfied with the infrastructure. Similarly, satisfaction towards services/ facilities of the park was found to be statistically significant at 5% level. However, within it, none of the groups showed a significant relationship with WTP. Only those people who were neutral showed a significant relationship at 10% level of significance with less likelihood of showing positive WTP than those who were satisfied with the attribute. Cost of the trip showed a statistically significant relation at 5% level for both dissatisfied and neutral respondents. Both the groups are found less likely to be positively willing to pay compared to the visitors who were satisfied with this attribute.

It is evident from the above that better infrastructure and services could positively influence the attitude of visitors. They will be willing to pay more for their visit if their satisfaction is higher in respect of these attributes. Also, improved infrastructure and services/facilities could lead to increase in satisfaction towards cost. As such, the visitors may perceive their visit to be more value for money. A higher satisfaction level in these regards could, therefore, enhance overall visitor experience and increase the probability of positive WTP. It may further go on to increase the visitors' loyalty towards MNP.

5 Conclusions

MNP is a globally significant nature-based tourism destination and the present study revealed considerable WTP among the visitors of the park. The findings of the study are motivating from managerial as well as theoretical perspectives. Most of the visitors were willing to pay higher than the current entry fee to visit the park. However, disparities could be observed among the visitor groups in terms of their origin. The foreigners stated the highest WTP amounts followed by the Indian visitors from outside Assam. The least WTP amounts were stated by the local visitors from Assam. In the absence of any previous studies in MNP, a comparison of the WTP figures is not possible. Nevertheless, the present study highlights the potentiality of charging higher entry fee at MNP and suggests the authorities to make necessary policy changes in order to tap the consumer surplus. Since the current entry fee is quite nominal, higher entry fee should be considered by the authorities to support its expenses and maximise its revenue.

It was observed that education and NGO membership/donation are significant socio-economic factors that affect visitors' WTP. In the overall model, however, only loyalty, environmental disposition and concern for MNP appeared to be significant and positively related to the visitors' WTP. The park authorities can, thus, take steps to increase the environmental education and awareness among the visitors which is likely to positively steer their concern for the park and improve their WTP as well. Loyalty towards the park can be increased by ensuring more visitor satisfaction, especially towards park infrastructure, service/facilities and overall cost. Park authorities would have to understand that any increase in price should also be reflected on the quality of the tourism product offered to the visitors. Improvements in these areas could lead to better tourism experience and ensure that visitors do not feel dissatisfied due to the higher fees. Although tourism in MNP is still at an early stage, it was observed that the visitors place considerable value to the preservation of the park and its wildlife. More tourism development could indeed bring positive changes in visitors' WTP. The additional revenue generated from increased entry fees could help the park management to improve their conservational efforts and develop MNP as a high quality tourism destination. Higher earnings could also promote more research activities as well as community welfare projects.

In India, WTP studies for nature-based tourism resources are very limited. The present study contributes to the field of CVM and national park tourism literature, especially in the north eastern states, by identifying the significant determinants of WTP at MNP. To the best of the researchers' knowledge, this study is the first in MNP to explore the visitors' WTP and explore its relationship with the key park attributes and various other related factors. The results obtained can help to support the empirical findings of past literature in the field and are consistent with prior theoretical expectations. The high WTP of the visitors presents a strong justification for the authorities to consider revision of the fees to reflect the consumer surplus.

It is important to note that MNP is quite distinct in terms of its features from other national parks in India or abroad, which makes it difficult to generalise the results. The study is also limited due to its lower sample size. The use of CVM may also attract questions regarding the possibility of survey biases, but reasonable care was taken to minimise any bias during the study. Nevertheless, the study observed good response rate and supports previous studies that observed high WTP in other national parks of the country.

Since the study deals exclusively with the users (visitors) of the park, future studies could certainly take up a larger sample size comprising both users and non-users. Further, the effect of different variables on the WTP amount of the visitors of MNP could also be analysed in future studies. Comparisons can also be drawn across different national parks and across domestic and international visitors in terms of their WTP to gain more insights. Finally, it is important to study and discuss the challenges involved in policy implementations. To bring about effective changes, it is advisable to regularly monitor the prices in the light of increasing inflation and budgetary requirements.

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SELF-EMPLOYMENT MOTIVES: A COMPARATIVE ANALYSIS OF ABLE AND DIFFERENTLY-ABLED INDIVIDUALS

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Abstract

This study explores the self-employment choices of individuals in Sonitpur district, Assam, India. A survey of 342 self-employed participants - comprising 228 able-bodied and 114 differently-abled individuals - was conducted to understand the role of push and pull factors in shaping entrepreneurial decisions. Economic independence emerged as the strongest pull factor for both groups. Self-confidence and passion for business also ranked high, while job creation and innovativeness were least influential. Differently-abled individuals placed comparatively greater value on family support and government benefits, highlighting their dependence on external assistance. Among push factors, dissatisfaction with low wages, desire for flexibility, and lesser commute were stronger motivators for able-bodied individuals. Differently-abled individuals prioritized autonomy, flexibility, and avoiding unemployment, with their choices shaped by the structural limitations they face in traditional job markets. The findings indicate that while push factors are dominant, enhancing pull factors can foster a more inclusive and sustainable entrepreneurial ecosystem. Shifting the narrative around self-employment from one of necessity to one of opportunity can empower individuals to embrace entrepreneurship not just as a means of survival but as a pathway to personal and professional fulfilment.

Keywords: *Self-employment; disability; entrepreneurship; push and pull factors; inclusive development; socio-economic barriers*

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1. Introduction

Self-employment is a key component of the informal sector—a vital yet often underrecognized part of economies, especially in developing countries (Nath, 2017). The informal sector includes economic activities outside the purview of formal legal frameworks, such as street vendors and small-scale service providers. Self-employment within this sector involves entrepreneurial activities that often lack formal registration or social protections. Factors like limited access to formal employment, high unemployment rates, and inadequate social safety nets drive individuals toward self-employment as a means of income generation and livelihood sustainability (International Labour Organization, 2020).

Self-employment refers to individuals running their own businesses or providing services independently, outside the structure of formal employment. According to the Organisation for Economic Co-operation and Development (2023), self-employed individuals are those who own and operate businesses, professional practices, or farms with the goal of earning a profit, distinct from traditional employees working for an employer. Self-employed individuals may include freelancers, entrepreneurs, and independent contractors, who rely on their skills and market demand to generate income. While this arrangement provides greater autonomy, it demands self-discipline, business knowledge, and strong risk management.

The growth of self-employment, especially following the COVID-19 pandemic, can be attributed to the increasing difficulties individuals face in securing formal sector jobs. U.S. Census Bureau data reveals a 54% rise in new business establishments from an average of 3.5 million annually pre-pandemic to 5.4 million in 2021. Similarly, in India, self-employment has become an essential livelihood strategy, particularly after economic reforms and policies that promote entrepreneurship. The Periodic Labour Force Survey (PLFS) report published by the Ministry of Statistics and Programme Implementation, Government of India (2023) highlights a significant increase in self-employment, particularly in rural areas, during 2022-2023.

As more individuals, including people with disabilities, participate in the informal sector, self-employment is emerging as a viable livelihood option. This shift is driven in part by the rising unemployment rate, particularly among persons with disabilities. Employment for this group has declined steadily, from 42.7% in 1991 to 37.6% in 2002, and further to 36.34% in the 2011 Census

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(Economy Bureau, 2007). According to the Census, approximately 2.68 crore individuals, or 2.21% of India's total population, are classified as disabled, with Assam having the highest proportion (1.79%) of disabled individuals in the North Eastern states.

The PWD Act, 1995, defines a person with disabilities as one with a disability of 40% or more, as certified by medical authorities (Ministry of Law, Justice and Company Affairs, 1996). The World Health Organization (n.d.) defines disability as a complex condition encompassing impairments, activity limitations, and participation restrictions. "Impairment" refers to challenges in body function or structure, "activity limitations" relate to difficulties in performing daily tasks, and "participation restrictions" involve obstacles in engaging in social roles and activities.

Disability is not only a health issue but also a social one, shaped by the interaction between the individual's physical condition and the surrounding environment. Effective solutions require addressing both environmental and societal barriers. Government initiatives aimed at fostering self-employment and entrepreneurship have provided essential support, creating a more enabling environment for individuals, especially those with disabilities. Combined with the limited opportunities in the formal sector, these factors have led to a noticeable rise in self-employment, particularly in Assam and other regions. Considering this, the present study aims to explore the motivations behind self-employment decisions by analysing the push and pull factors that shape individual choices. By examining these factors in the context of both able-bodied and differently-abled individuals, the study seeks to uncover how these motivations differ and overlap, as well as the specific challenges and opportunities faced by each group. These motivations are especially relevant in regions like India, where socio-economic conditions, cultural norms, and the availability of formal job opportunities significantly influence career choices. The following section delves into these factors in detail.

2. Literature Review

Self-employment has increasingly become a preferred career path for individuals seeking greater autonomy, financial independence, and flexibility in their work. For people with disabilities, self-employment can provide a flexible and adaptive work environment tailored to their specific needs, offering a solution to the challenges they may face in mainstream job markets (Nazarov et. al., 2015). Both able-bodied individuals and persons with disabilities are

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often driven to self-employment by a combination of "push" and "pull" factors.

Push factors are external pressures or constraints that push individuals toward entrepreneurship, often due to a lack of alternative employment opportunities, job insecurity, or dissatisfaction with traditional work environments. On the other hand, pull factors include internal motivations that draw individuals willingly towards entrepreneurial pursuits (Blanchflower et al., 2001).

Often perceived as negative or obligatory influences, the push motives make self-employment more of a necessity than a voluntary career choice (Dawson & Henley, 2012). Common push factors include job dissatisfaction, high unemployment rates, discrimination, and the difficulty of accessing suitable employment, all of which are particularly impactful for people with disabilities who encounter numerous barriers to inclusive work environments (Storey, 1982). For able-bodied individuals, push motives typically arise from limited career progression or dissatisfaction with conventional employment. However, for those with disabilities, push factors are more likely to stem from societal biases, inaccessible workplaces, and a lack of job opportunities that accommodate their needs (Dennis, 1996). In regions like Assam, where formal employment is limited, these push factors are even more pronounced, particularly for marginalized groups, including individuals with disabilities (Nath, 2017).

Unemployment stands out as a major push factor, often forcing individuals into self-employment when traditional job prospects are unavailable. Research suggests that during economic downturns or periods of high unemployment, there is a noticeable rise in self-employment rates as people seek entrepreneurial alternatives in response to the scarcity of formal job options (Storey, 1982). This trend is particularly visible in regions where youth unemployment is high, prompting younger individuals to explore self-employment as a means of escaping unemployment (Blanchflower et al., 2001). Dissatisfaction with conventional employment also plays a critical role as individuals facing low wages, lack of career progression, poor work-life balance, or unhealthy work environments may view self-employment as an opportunity for greater autonomy and a means of escaping these undesirable conditions (Robson, 1998). Furthermore, individuals who feel insecure in wage employment may be more inclined to pursue self-employment, where they have greater control over their career trajectory.

Economic instability often propels individuals toward self-employment

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as they seek stable sources of income amid uncertainty. In times of economic crisis, widespread layoffs, or shrinking job markets, many individuals find themselves with fewer formal employment options, pushing them to consider entrepreneurial ventures as an alternative (Audretsch & Thurik, 2001). During periods of economic downturn, studies have shown a notable increase in self-employment rates, with many individuals turning to entrepreneurship as a fallback when traditional job opportunities become scarce (Jones et al., 2011).

In contrast to the pressures of push factors, pull factors are driven by positive motivations that attract individuals to self-employment. These include the desire for greater autonomy, financial gain, the pursuit of personal passions, and the flexibility to design one's own work schedule (Hughes, 2006). These motivating factors provide compelling reasons for individuals to pursue self-employment, often seen as a more fulfilling path compared to traditional wage employment.

A key pull factor is autonomy. Many are drawn to self-employment because it offers the freedom to be one's own boss, make independent decisions, and control various aspects of their work. Studies confirm that individuals who value autonomy are more likely to choose self-employment, appreciating the liberty to set their own schedules, determine tasks, and pursue personal goals (Carter et al., 2003). This independence often translates into higher job satisfaction, as self-employed individuals typically experience greater control over their professional lives than those working in conventional jobs (Taylor, 1996). Financial incentives also play a major role, with self-employment offering the potential for higher earnings and financial security. Although entrepreneurial ventures carry financial risks, they also offer the possibility of substantial rewards, particularly when a business succeeds. Entrepreneurs are motivated by the opportunity to directly benefit from the fruits of their labour (Clark and Drinkwater, 2000).

Personal fulfilment and passion are other significant pull factors for many individuals. Self-employment allows individuals to align their work with their interests, turning their passions into a source of income and deriving personal satisfaction from their endeavours. This drive is particularly common among individuals with strong personal interests or those pursuing creative or specialized fields (Earle and Sakova, 2000). Self-employment enables these individuals to turn their passion into a livelihood, making their work meaningful and fulfilling. By engaging in self-employment, individuals can work on

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projects that resonate deeply with them, making their professional lives more meaningful and rewarding.

The flexibility offered by self-employment is another attractive feature. Unlike traditional jobs, which often come with rigid schedules, self-employment allows individuals to choose their working hours and create a work environment that aligns with their personal preferences. This flexibility is especially appealing to those with family responsibilities or a strong desire for a better work-life balance. Studies have shown that individuals who prioritize flexibility and work-life integration are more likely to pursue self-employment, as it allows them to merge professional and personal life effectively (Ashcroft and Love, 1996). However, factors such as lack of capital, confidence or skills and fear of losses may discourage entrepreneurial pursuits (Gill et al., 2011).

In rural India, and particularly in Assam, the economic landscape has made self-employment a crucial economic strategy, particularly for marginalized groups. The region's limited industrial base and reliance on agriculture and small-scale industries often result in a lack of formal employment opportunities (Gudlavalleti, 2018). As a result, self-employment emerges as a significant avenue for economic participation. Local crafts, agriculture, tea plantations, and traditional handloom weaving are among the sectors where self-employment is prevalent. For able-bodied people, the decision to enter self-employment is often influenced by pull factors such as the desire for economic independence and flexibility. Entrepreneurship is viewed as an active decision to improve one's livelihood and overcome the constraints of limited formal job options (Storey, 1982).

However, for persons with disabilities, self-employment is less of a choice and more of a necessity. Push factors such as inaccessible workplaces, societal stigma, and inadequate education or training create significant barriers, leaving them with few viable options outside of self-employment. Mohan (2014) emphasizes that these constraints force differently-abled individuals to forge their own paths and create their own economic opportunities, highlighting the systemic limitations they face in the traditional labour market. A study by Nath (2017) highlights that in Assam, where nearly 1.79% of India's disabled population resides, the absence of inclusive employment opportunities forces individuals with disabilities to seek self-employment as a means to secure a livelihood. According to the World Health Organization (WHO, 2020), individuals with disabilities face not only physical but also attitudinal barriers in

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the labour market, leading to high unemployment rates and underemployment.

In a study in Bhutan, Drakpa et al. (2024) found that the environment of government policies and financial assistance was rated poor by the entrepreneurs. In India, Chellamuthu (2015) indicates that government schemes aimed at supporting the entrepreneurship of persons with disabilities have been insufficient in addressing the challenges they face. While initiatives such as the National Handicapped Finance and Development Corporation (NHFDC) and the Accessible India Campaign have been introduced to promote economic participation, the actual impact on the ground remains limited. Many individuals with disabilities, especially in rural areas like Assam, continue to encounter barriers in terms of access to finance, training, and market linkages, which further complicates their pursuit of self-employment.

Research by Devi et al. (2020) advocates for a more inclusive approach to self-employment that goes beyond financial support and includes skills training, accessible infrastructure, and more inclusive policies to break down the barriers that restrict employment opportunities for persons with disabilities. Without these interventions, the cycle of exclusion will likely continue, and self-employment will remain, for many, a matter of necessity rather than choice.

Building upon the existing literature, it is evident that most studies have treated self-employment among differently-abled in isolation, creating a significant gap in comparative research within shared socio-economic frameworks. While the "push-pull" framework applies to both cohorts, the forces involved are rarely symmetrical; able-bodied individuals are often "pushed" by personal dissatisfaction, whereas the differently-abled face structural and involuntary barriers. Existing regional and institutional frameworks often fail to support these groups equally. Furthermore, empirical data remains scarce - particularly in the context of Assam. This study tries to address these gaps by comparing self-employment motives among differently-abled and able-bodied individuals within this specific region. By providing localized evidence, this research seeks to provide valuable insights to enable the transition of policies from basic financial aid toward a more inclusive and robust entrepreneurial ecosystem.

3. Methodology

This study is based on an exploratory survey conducted among 342 self-employed individuals from the Sonitpur district of Assam, India. 228 able-bodied individuals and 114 differently-abled individuals engaged in

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various business activities. Sonitpur was specifically selected due to its significant population of differently-abled persons, ranking second in Assam for the proportion of individuals with disabilities according to the 2011 Census (Directorate of Economics and Statistics, 2019). To capture the perspectives of the target population, a snowball sampling method was utilized, which is particularly effective when dealing with hard-to-reach populations, such as self-employed individuals with disabilities, whose numbers are not systematically recorded (Chattopadhyay, 2021). Given that the population of differently-abled self-employed individuals in the state is not documented, snowball sampling was deemed appropriate, as supported by previous research (Chattopadhyay, 2021). Primary data was gathered through fieldwork, employing a structured questionnaire designed to assess both push and pull factors influencing the decision to engage in self-employment. Respondents were asked to rate various factors on a five-point Likert scale, where 1 represented low agreement and 5 indicated high agreement. Data analysis was performed using descriptive statistics and independent samples t-tests to draw meaningful comparisons and insights.

4. Respondents' profile

The study surveyed 342 self-employed individuals, with 33.3% (n=114) being differently-abled and 66.7% (n=228) able-bodied. The study surveyed 342 self-employed individuals, with 33.3% (n=114) being differently-abled and 66.7% (n=228) able-bodied. Among the differently-abled respondents, most (38.6%) had secondary education, with 21.9% holding higher secondary and 29.8% primary education. Only 9.6% had completed a bachelor's degree, highlighting limited access to higher education. The majority were aged between 29-50 years, with 84.2% being male, indicating a gender imbalance. A large proportion (88.6%) resided in rural areas, and 69.3% were married, suggesting family influences on their entrepreneurial decisions.

Disability types were predominantly locomotor (79.8%). Other impairments were less common. The severity of disabilities varied, with 49.1% categorized as mild, 32.5% moderate, and 18.4% severe. While 71.1% held a Unique Disability Identification (UDID) card, indicating formal recognition and possible access to benefits, a substantial portion lacked this certification. Most were engaged in trading (45.6%), followed by manufacturing (30.7%) and services (23.7%). Notably, 82.5% operated independently, while only 10.5% operated as employers, reflecting resource limitations. Notably, 82.5% operated independently, and 57.9% had not received formal business training, indicating

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gaps in skills development.

In contrast, able-bodied respondents had higher educational attainment, with 34.2% completing secondary education, 31.6% achieving higher secondary, and 11% graduating. The age distribution mirrored the differently-abled cohort, with 44.7% aged 29-39 years and 41.7% aged 40-50 years. Gender distribution showed slightly better female representation, with 19.7% women. Rural residency was dominant, encompassing 86.8% of participants. A larger proportion of abled respondents (81.1%) were married, which could suggest stronger social and familial stability. Business activities were comparable, with trading (45.2%) and manufacturing (30.3%) being prominent and most engaged as independent workers (85.1%),. However, fewer had received business training (20.2%), pointing to broader systemic issues in skill development across both groups.

5. Results

5.1. Pull factors influencing the able and differently abled individuals in choosing self-employment

The analysis of descriptive statistics highlights economic independence as the most compelling motivation for self-employment among able-bodied individuals, with a mean score of 4.09. This is closely followed by self-confidence (mean = 4.01) and a passion for business (mean = 3.14). These findings suggest that financial self-sufficiency and personal confidence are key drivers, while entrepreneurial interest plays a secondary role. On the other hand, the least influential factors include the desire to create jobs (mean = 2.13) and innovativeness (mean = 2.13), with government benefits (mean = 2.14) ranking slightly higher among the less significant motivators.

For differently-abled individuals, economic independence also stands out as the strongest motivator (mean = 3.93), followed by self-confidence (mean = 3.88) and passion for business (mean = 3.58). Similar to their able-bodied counterparts, creating jobs (mean = 1.50) and innovativeness (mean = 2.22) rank as the least influential factors.

The findings reveal notable similarities between able-bodied and differently-abled individuals, particularly in their emphasis on economic independence and self-confidence as key motivators for self-employment. This emphasis on economic independence reflects a shared goal across both groups to achieve financial stability through self-employment. However, the relatively

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low prioritization of innovation and job creation suggests a practical focus on earning a livelihood rather than fulfilling entrepreneurial interests, particularly among differently-abled individuals. The findings also reflect a conservative entrepreneurial mindset, consistent with previous studies on entrepreneurial behaviour in Assam, which have highlighted risk aversion and a preference for traditional business activities (Mohan, 2014). Most of the individuals are involved in conventional business activities to achieve financial independence rather than be creative. Government benefits also score somewhat low among the self-employed in the region, indicating the need to focus in that area.

Table 1: Pull factors influencing the able-bodied self-employed persons

Pull factors	N	Minimum	Maximum	Mean	Std. Deviation
Self confidence	228	3	5	4.01	0.555
Encouragement from family	228	1	5	2.32	0.750
Prior business knowledge	228	2	5	3.11	0.658
Govt. benefits	228	1	4	2.14	0.589
Desire for innovativeness	228	1	4	2.13	0.601
Economic independence	228	3	5	4.09	0.548
Desire to create jobs	228	1	3	2.13	0.556
Passion for business	228	2	5	3.14	0.607

Table 2: Pull variables influencing the differently-abled self-employed persons

Pull factors	N	Minimum	Maximum	Mean	Std. Deviation
Self confidence	114	2	5	3.88	0.667
Encouragement from family	114	2	5	3.05	0.676
Prior business knowledge	114	1	5	2.75	0.929
Govt. benefits	114	1	5	2.43	1.030
Desire for innovativeness	114	1	4	2.22	0.860
Economic independence	114	2	5	3.93	0.648
Desire to create jobs	114	2	5	1.50	0.971
Passion for business	114	2	5	3.58	0.808

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Table 3: Pull factors among the self-employed persons (Significant differences)

Pull factors	Differently-abled self-employed *Mean (s.d.)*	Able self-employed *Mean (s.d.)*	Independent Samples t-test		
			t	df	Sig.
Self-confidence	3.88 (0.667)	4.01 (0.555)	-1.815	193.305	0.071
Encouragement from family	3.05 (0.676)	2.32 (0.750)	9.100	247.963	**0.000***
Prior business knowledge	2.75 (0.929)	3.11 (0.658)	-3.740	171.356	**0.000***
Govt. benefits	2.43 (1.030)	2.14 (0.589)	2.823	150.962	**0.005***
Desire for innovativeness	2.22 (0.860)	2.13 (0.601)	0.977	169.962	0.330
Economic independence	3.93 (0.648)	4.09 (0.548)	-2.360	340	**0.019***
Desire for job creation	1.50 (0.971)	2.13 (0.556)	-6.439	151.014	**0.000***
Passion for business	3.58 (0.808)	3.14 (0.607)	5.119	178.573	**0.000***

** Significant at 0.05 level of significance*

The analysis of pull factors through independent samples t-tests (Table 3) highlights notable differences between able-bodied and differently-abled self-employed individuals. While no significant differences were found in self-confidence and the desire for innovativeness, other factors showed considerable variation between the two groups. Differently-abled individuals place greater importance on family encouragement, government benefits, and passion for business. Conversely, able-bodied individuals score higher on prior business knowledge, economic independence, and the desire for job creation.

- **Encouragement from family:** Differently-abled individuals rate family encouragement more highly (μ=3.05) as a motivator for self-employment compared to able-bodied individuals (μ=2.32). This could stem from greater reliance on familial support, which may play a crucial role in their decision-making process. Unlike their able-bodied counterparts, who may have broader career opportunities, the differently-abled often rely on emotional and practical support from their families.

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- **Government Benefits:** Government benefits are observed to be more influential for the differently-abled individuals (μ=2.43) in pursuing self-employment. This reflects their dependency on external support systems and the role of systemic incentives in overcoming barriers to traditional employment (Mohan, 2014). For able-bodied individuals, government benefits are less influential (μ=2.14), potentially due to lesser dependency on such schemes or a lack of awareness about available opportunities. Additionally, bureaucratic hurdles and complex application processes (Chellamuthu, 2015) may deter able-bodied individuals from availing these benefits.
- **Passion for Business:** Differently-abled individuals exhibit a stronger passion for business (μ=3.58), possibly due to limited opportunities in the traditional job market. Structural barriers tied to their physical challenges make entrepreneurship a viable means for livelihood (Mohan, 2014). In contrast, able-bodied individuals, with better access to job opportunities, may prioritize stable employment over the uncertainties of business.
- **Prior Business Knowledge:** Able-bodied individuals demonstrate a higher reliance on prior business knowledge (μ=3.11). This suggests that able-bodied entrepreneurs often capitalize on their experience and skills to pursue self-employment.
- **Economic Independence:** While economic independence is a key motivator for both groups, it holds slightly more weight among able-bodied individuals (μ=4.09), emphasizing their greater readiness to leverage opportunities for self-reliance.
- **Desire for Job Creation and Innovativeness:** The desire for job creation remains the least influential factor for both groups, though able-bodied individuals show slightly higher motivation in this area (μ=2.13). Differently-abled individuals prioritize immediate financial needs over broader goals like job creation or innovation, reflecting a pragmatic approach to entrepreneurship.

5.2. Push factors influencing the able and differently abled individuals in choosing self-employment

The descriptive statistics for push factors (Table 4) reveal that among able-bodied self-employed individuals, the most influential reason for choosing self-employment is dissatisfaction with low wages in traditional

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employment, as reflected by the high mean score of 'lower remuneration in wage employment' (μ=3.40). This suggests that many individuals turn to self-employment as a way to escape undervalued or poorly compensated wage jobs. It indicates a perception that entrepreneurship offers greater earning potential or rewards for effort and skills. The appeal of flexibility in work hours is a close second (μ=3.37). Being able to control one's schedule allows individuals to achieve a better work-life balance, a priority for many in today's workforce. Avoiding long or costly commutes ranks as the next most influential motivator (μ=3.35). This practical consideration reflects the growing emphasis on saving time and money, especially in regions where commuting conditions are challenging. The least influential push factors for this group are 'temporary engagement till employment' (μ=2.96) and the 'ease of market entry' (μ=2.97). The relatively low ranking of 'temporary engagement till employment' suggests that for many individuals, self-employment is viewed as a long-term, stable career option rather than a temporary solution. Additionally, the 'ease of market entry' is not a dominant factor, which shows that market entry is not perceived as straightforward. It reflects the growing competitiveness of self-employment sectors where entry barriers, such as initial capital or required expertise, might still pose challenges for aspiring entrepreneurs.

Table 4: Descriptive statistics for Push variables for self-employed able persons

Push factors	N	Minimum	Maximum	Mean	Std. Deviation
Work autonomy	228	2	5	3.18	0.779
Ease of market entry	228	1	5	2.97	0.807
To avoid unemployment	228	1	5	3.23	0.876
Lower remuneration in wage employment	228	2	5	3.40	1.096
Lower capital requirement to start business	228	2	5	3.10	0.745
Flexible schedule	228	2	5	3.37	0.788
Lower commute	228	2	5	3.35	0.914
Temporary engagement till employment	228	1	5	2.96	0.770
To be engaged in something productive	228	2	5	3.16	0.740

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The analysis of push factors for the differently-abled self-employed (Table 5) highlights distinct motivations compared to their able-bodied counterparts. A 'flexible schedule' (μ=3.83) ranks as the most influential factor, closely followed by the need 'to avoid unemployment' (μ=3.82) and the desire for 'work autonomy' (μ=3.81). These findings reflect their prioritization of independence and adaptability in their work environment, as well as the necessity of self-employment in the face of limited opportunities in traditional job markets. For differently-abled individuals, flexibility is not merely a convenience but often a necessity, accommodating physical, medical, or mobility-related challenges. The emphasis on avoiding unemployment highlights the systemic barriers faced by them, such as workplace discrimination, inaccessible infrastructure, and limited roles tailored to their abilities. The strong desire for autonomy further illustrates how self-employment serves as a vehicle for empowerment.

The least important factors for this group are 'temporary engagement till employment' (μ=2.37) and 'lower capital requirement to start business' (μ=2.39). Similar to their able-bodied counterparts, the differently-abled view self-employment as a long-term commitment rather than a temporary solution. This reflects the necessity-driven nature of their entrepreneurial ventures, where self-employment is often a means of survival rather than a stepping stone. While financial barriers remain a challenge, the relatively low importance of this factor suggests that non-financial benefits—such as autonomy and flexibility—carry greater weight.

Table 5: Descriptive statistics for Push variables for self-employed differently abled persons

Push factors	N	Minimum	Maximum	Mean	Std. Deviation
Work autonomy	114	2	5	3.81	0.851
Ease of market entry	114	1	5	3.09	0.858
To avoid unemployment	114	1	5	3.82	0.888
Lower remuneration in wage employment	114	1	5	2.99	0.747
Lower capital requirement to start business	114	1	5	2.39	0.973
Flexible schedule	114	2	5	3.83	0.851
Lower commute	114	1	5	3.18	0.865
Temporary engagement till employment	114	1	5	2.37	1.024
To be engaged in something productive	114	2	5	3.29	0.688

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When comparing the push factors for able-bodied versus differently-abled self-employed individuals, a few key differences emerge. For the able-bodied, financial dissatisfaction with wage jobs and the desire for better work-life balance are prominent motivators. Self-employment offers them a way to overcome the limitations of traditional employment, such as low pay or rigid schedules. In contrast, the differently-abled prioritize survival and independence, with avoiding unemployment and achieving work autonomy being their primary concerns. While both groups value flexibility, its significance differs. For the differently-abled, flexibility is essential for managing their unique needs, such as health considerations or mobility challenges. For the able-bodied, flexibility is seen more as a means to enhance convenience and improve work-life balance.

The analysis of push factors through independent samples t-tests (refer to Table 6) reveals significant differences in several factors influencing self-employment decisions between able-bodied and differently-abled individuals. Seven push factors demonstrated statistically significant disparities, while two factors - 'ease of market entry' and 'to engage in something productive' - showed no notable differences between the groups.

- **Work Autonomy:** Differently-abled individuals place a notably higher emphasis on work autonomy (μ=3.81) compared to their able-bodied counterparts. This underscores their strong desire for independence, likely driven by limited traditional job opportunities and the need to overcome societal or workplace barriers.
- **Avoiding Unemployment:** With a mean score of μ=3.23, differently-abled individuals prioritize self-employment as a critical means of avoiding unemployment. This reflects the challenges they face in securing traditional jobs, such as discrimination or a lack of accessible roles.
- **Flexible Schedule:** Differently-abled individuals highly value flexibility (μ=3.37) as it allows them to accommodate personal needs, including health or mobility considerations. While flexibility is also valued by the able-bodied, it holds greater significance for the differently-abled due to its functional importance rather than convenience.
- **Lower Remuneration in Wage Employment:** Able-bodied individuals (μ=3.40) are significantly more driven by dissatisfaction with low pay in wage employment compared to differently-abled individuals (μ=2.99). For the able-bodied, financial concerns play a central role, whereas the differently-abled are more focused on stability and independence.

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- **Lower Capital Requirement to Start a Business:** Differently-abled individuals rate this factor lower (μ=2.39) than the able-bodied, indicating that financial barriers are a secondary concern for them. Their focus on overcoming employment challenges may outweigh concerns about startup costs.
- **Lower Commute:** While both groups value shorter commutes, able-bodied individuals (μ=3.35) find this factor slightly more influential than the differently-abled (μ=3.18). This may reflect the differently-abled persons' prioritization of autonomy and flexibility over logistical conveniences.
- **Temporary Engagement till Employment:** Differently-abled individuals place lower emphasis on this factor (μ=2.37) compared to the able-bodied, viewing self-employment as a long-term necessity rather than a temporary solution.

Table 6: Push factors among the self-employed persons (Significant differences)

Push factors	Self-employed differently abled individuals *Mean (s.d.)*	Self-employed able individuals *Mean (s.d.)*	Independent Samples t-test		
			t	df	Sig.
Work autonomy	3.81 (0.851)	3.18 (0.779)	6.807	340	**0.000***
Ease of market entry	3.09 (0.858)	2.97 (0.807)	1.206	340	0.229
To avoid unemployment	3.82 (0.888)	3.23 (0.876)	5.823	340	**0.000***
Low remuneration in wage employment	2.99 (0.747)	3.40 (1.096)	-4.090	309.142	**0.000***
Low capital requirement for starting their business	2.39 (0.973)	3.10 (0.745)	-6.856	181.122	**0.000***
Flexible schedule	3.83 (0.851)	3.37 (0.788)	5.006	340	**0.000***
Lower commute	3.18 (0.865)	3.35 (0.914)	-1.692	237.600	**0.092***
Temporary engagement till employment	2.37 (1.024)	2.96 (0.770)	-5.450	178.818	**0.000***
To engage in something productive	3.29 (0.688)	3.16 (0.740)	1.586	340	0.114

** Significant at 0.05 level of significance*

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5.3. Overall comparison - push and pull variables

The study also compared the overall scores of the push and pull factors for both categories of self-employed individuals (Table 7). In both groups, push factors scored significantly higher than pull factors, suggesting that the necessity-driven motivations are a central force behind self-employment for both able-bodied and differently-abled individuals. Factors such as low wages, lack of flexibility in traditional employment, and limited job opportunities compel individuals to seek self-employment as a viable livelihood option. While pull factors, such as the pursuit of economic independence or the passion for business, remain relevant, their lower scores indicate that these aspirational motivations play a secondary role in shaping self-employment decisions. It reflects a gap in the aspirational appeal of self-employment. Many individuals may not perceive entrepreneurship as an opportunity to achieve personal fulfilment or long-term ambitions, but rather as a pragmatic response to external challenges.

Table 7: Comparison of push and pull factors among the self-employed individuals

Self-employed able individuals					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Pull factors	228	14.00	31.00	23.0658	3.97792
Push factors	228	19.00	37.00	28.7149	5.34224
Self-employed differently abled individuals					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Pull factors	114	13.00	30.00	23.3333	3.99262
Push factors	114	16.00	37.00	28.7544	5.22343

6. Conclusion

This study highlights the contrasting motivations for self-employment among differently-abled and able individuals in Sonitpur district, Assam. Understanding these differences is essential for designing inclusive policies and programs that cater to the unique needs of each group, ensuring equitable opportunities for all self-employed individuals. The study highlights the need to rebalance the motivations driving self-employment by reducing dependency on push factors and amplifying the influence of pull factors. Shifting the narrative around self-employment from one of necessity to one of opportunity can create a more inclusive and aspirational entrepreneurial culture, empowering individuals to embrace entrepreneurship not just as a means of survival but as a pathway to

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personal and professional fulfilment.

Strategies could include providing resources, training, and mentorship to highlight the financial and personal growth potential of entrepreneurship. Authorities can initiate programs that build entrepreneurial confidence through skill development, networking opportunities, and success stories of self-employed individuals. Offering platforms to nurture creative ideas and innovations, such as grants or incubators tailored to specific industries, can help encourage passion for self-employment. Addressing the root causes of necessity-driven self-employment can alleviate the overreliance on push factors, particularly by improving the wage conditions and job flexibility in traditional employment sectors. Creating accessible job opportunities for differently-abled individuals and targeted support, such as financial incentives, accessible infrastructure, can help bridge the gap between push and pull factors and reduce the pressure of pursuing self-employment solely as a survival mechanism.

By addressing these aspects, stakeholders can foster a supportive environment that empowers individuals, regardless of physical ability, to thrive in self-employment. Theoretically, this research contributes to understanding the intersection of disability, entrepreneurship, and socio-economic barriers. Practically, the findings inform policymakers and development agencies about the need for inclusive strategies that enhance pull factors and reduce systemic barriers. The study's reliance on self-reported data and its regional focus limit generalizability. Future research could adopt longitudinal designs and explore other regions to validate the findings. Additionally, investigating the role of technology and digital platforms in empowering differently-abled entrepreneurs could provide valuable insights in future.

Declarations

All authors declare that they have no conflicts of interest. Further, this study involved self-employed individuals with and without disabilities. Verbal consent was obtained from the North Assam Divyang Association, which facilitated access to the participants. The surveys were conducted with the support of the association's members, ensuring that participants were fully informed about the purpose of the research. Verbal consent was obtained from each participant, and they were assured of their right to withdraw at any time without consequences, and their privacy was maintained throughout the study. By providing consent, participants agreed to participate voluntarily, understanding the study's objectives.

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Determinants of Organic Food Purchase: Evidence from Kamrup Metropolitan District, Assam

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Factores determinantes de la compra de alimentos ecológicos: datos del distrito metropolitano de Kamrup, en Assam

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ABSTRACT

The paper aims to identify and examine the key factors influencing consumers' actual purchase behaviour toward organic food products. It seeks to highlight the relative impact of cognitive, social, attitudinal, and market-related factors within a consumer behaviour framework. The study employs a quantitative research design using primary data collected from 400 consumers familiar with organic food products through a structured questionnaire. A multiple regression analysis was conducted to examine the effects of knowledge, health, food safety, perceived price, subjective norms, trust, availability, quality, awareness, attitude, overall satisfaction, purchase intention, and word of mouth on actual purchase behaviour. The results reveal that purchase intention is the strongest and most significant predictor of actual purchase behaviour, followed by availability and perceived price. Quality shows a significant negative influence on actual purchase behaviour, suggesting caution when higher quality is perceived. Word of mouth exhibits a marginal effect, while knowledge, health concern, food safety, awareness, attitude, trust, subjective norms, and overall satisfaction do not significantly influence actual purchase behaviour. The study focuses on actual purchase behaviour rather than purchase intention, highlighting the gap between consumer perceptions and actual buying behaviour and emphasizing the importance of behavioural drivers in organic food consumption.

Keywords: Consumer Behaviour; Consumer Awareness; Purchase Intention; Attitude; Organic Food; Sustainability.

RESUMEN

El presente trabajo tiene como objetivo identificar y examinar los factores clave que influyen en el comportamiento de compra real de los consumidores de productos alimenticios ecológicos. Pretende destacar el impacto relativo de los factores cognitivos, sociales, actitudinales y relacionados con el mercado dentro de un marco de comportamiento del consumidor. El estudio emplea un diseño de investigación cuantitativo que utiliza datos primarios recopilados de 400 consumidores familiarizados con los productos alimenticios ecológicos mediante un cuestionario estructurado. Se llevó a cabo un análisis de regresión múltiple para examinar los efectos del conocimiento, la salud, la seguridad alimentaria, el precio percibido, las normas subjetivas, la confianza, la disponibilidad, la calidad, la concienciación, la actitud, la satisfacción general, la intención de compra y el boca a boca sobre el comportamiento de compra real. Los resultados revelan que la intención de compra es el predictor más fuerte y significativo del comportamiento de compra real, seguido de la disponibilidad y el precio percibido. La calidad muestra una influencia negativa significativa en el comportamiento de compra real, lo que sugiere cautela cuando se percibe una mayor calidad. El boca a boca muestra un efecto marginal, mientras que el conocimiento, la preocupación por la salud, la seguridad alimentaria, la concienciación, la actitud, la confianza, las normas subjetivas y la satisfacción general no influyen significativamente en el comportamiento de compra real. El estudio se centra en el comportamiento de compra real más que en la intención de compra, poniendo de relieve la brecha entre las percepciones de los consumidores y el comportamiento de compra real y haciendo hincapié en la importancia de los factores que impulsan el comportamiento en el consumo de alimentos ecológicos.

Palabras clave: Comportamiento del Consumidor; Concienciación del Consumidor; Intención de Compra; Actitud; Alimentos Ecológicos; Sostenibilidad.

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INTRODUCTION

In recent trends, food consumption in most developed countries has reached its peak in terms of quantity, leading to more diverse eating habits.[1] Consumers are increasingly focused on the nutritional value, health benefits, and quality of the food they consume. The literature widely documents the rising importance of health considerations and the environmental impact of food production on consumer choices.[2] This heightened health consciousness has led to a significant rise in demand for environmentally friendly options, particularly organic foods. As awareness grows regarding the harmful effects of non-organic food, more consumers are choosing organic products as a safer alternative.[3] The growing demand for organic products has increased considerably worldwide.[4] This shift in consumer preferences has captured the attention of academics, businesses, the media, governments, and NGOs, all recognizing the need for a sustainable and healthy environment. Awareness and knowledge have become important factors in shaping consumer attitudes and behaviours toward organic foods, which ultimately drives the growth in the organic food market.[5]

Due to consumers' growing interest in food, the organic food market has expanded significantly, which is an essential aspect of daily life. Regarding the development of the global organic foods market, statistics indicate that it has increased from US$ 17,9 billion in 2000 to US$ 62,9 billion in 2011.[6] Organic food has appeared to be a preferred choice for certain segments of India's population. The organic products market in the country has been at a compound annual growth rate (CAGR) of 25 %, with projections indicating it would reach between INR 10000-20000 crore by the end of 2020, from INR 4000 in 2019. Within this sector, the estimation of the market size of organic packaged food is at a CAGR of 17 %, increasing from INR 53,3 crore in 2016 to over INR 87,1 crore by 2021.[7]

In the green food markets of India, one of the prominent agricultural economies,there hasbeenan increasing consumer interest in organic food products due to concerns about food safety, pesticide residue, and other lifestyle diseases. The realisation of the harmful consequences of the industrial food system has resulted in a universal drift towards organic and sustainable food consumption, which has propelled the growth of organic food markets over the globe.[8] The organic food market in India is still in the growth phase, but it is developing at a fast pace, and investment opportunities are increasing. The shift is taking place because of Urbanization, changes in consumer behaviour, and government policies like Paramparagat Krishi Vikas Yojana (PKVY) and National Program for Organic Production (NPOP).[9,10] Fromancient times, the ancient Indian diet had a strong preference for fresh fruits, vegetables, pulses, and meat without the use of harmful chemicals and of self-grown produce. Over the last few decades, the face of Indian agriculture has changed drastically, with natural manure giving way to chemical-based fertilizers and pesticides to achieve early and abundant produce. Increased use of pesticides results in toxic effects on the production potential of the land and health problems for the ultimate consumers of the products. Observing the perceived negative impacts of chemical-based farming, the organic food market is rapidly picking up worldwide scale. Presently, India is showing growth in organic food products. Indian customers have been focusing on good health and a balanced diet, due to which interest in organic food products is increasing. India produced around 1,24 million MT of certified organic products, which includes all varieties of food products such as Vegetables, Pulses, Spices, Tea, Cotton, Oil Seeds, Basmati Rice, and their value-added products.[11] Despite these positive developments, the growth of organic food consumption in India remains uneven across regions.

Within this broader national framework, Assam represents a particularly relevant yet underexplored context. The state possesses significant natural advantages for organic agriculture. In Assam, many farmers still rely on traditional farming methods. The region's unique landscape, with fertile plains, mountain areas, diverse ecosystems, wetlands, and heavy rainfall, offers ideal conditions for organic agriculture. Various organic crops such as tea, joha rice, and lemons are grown here. In the 1990s, Chamong Tea Exports Private Limited recognized the export potential of Assam's organic tea. The rising demand for organic products, including medicinal rice varieties like Joha and Ukhura, as well as passion fruits and organic green tea, has encouraged more farmers to adopt organic farming.[12] Despite the significant potential for organic food production in Assam, the export market for these products remains relatively limited. According to the Agricultural and Processed Food Products Export Development Authority (APEDA), in 2016-2017, only two northeastern states, Assam (11 metric tons) and Meghalaya (1 metric ton), reported organic product exports.[13]

Although Assam demonstrates considerable potential in the organic food product market, the industry has not experienced substantial growth within the state. The market for other organic items from the region remains underdeveloped.[13] To understand the reasons for the slow development of the organic food market in the area and to suggest an effective policy intervention, it is crucial to first assess the awareness, usage, and attitudes of current and potential consumers. Research on consumer behaviour and their purchasing habits could provide valuable insights for creating effective marketing strategies to foster overall growth in the sector. These insights are essential for propelling the expansion of the organic food industry, as they help align the industry's efforts with consumer needs and expectations.

Urban customers are likely to have greater access to organic food products and related information. Therefore, Kamrup Metropolitan District, which includes Guwahati, the commercial and urban hub of Assam, offers the most suitable environment to study and comprehend this phenomenon. The district represents the highest concentration of urban consumers in the state and provides an ideal environment to examine how awareness and intention translate into actual purchase behavior. In this context, the current study aims to identify and examine the key factors influencing consumers' actual purchase behaviour toward organic food products in Kamrup Metropolitan District, Assam.

Literature Review

The review of existing literature reveals a multitude of determinants shaping consumer purchasing behaviour. Basha et al.[3] stated that the awareness of the harmful effects of chemicals present in food is increasing among consumers. The study identified what induces consumers to turn toward organic food. The results show that the quality of products, health concerns, environmental concerns, and lifestyle are the most commonly stated motives for purchasing organic foods.[3] On the other hand, Kumar[14] observed that organic food encourages harmony between people, other living things, and the environment. It also

encourages the use of natural stabilizers, which best preserve the food's original flavor.[14]

Aruljothi R[15] examined the prevailing gap between consumers' expectations, perceptions, and satisfaction towards organic food products to suggest suitable measures for enhancing organic food product sales in the study region. The study found that most consumers were aware of the organic food products available in the market. The study stated that growth in the market can be attributed to growing health concerns among consumers and increasing awareness about the health benefits of organic food.[15] Kumawat[16] assessed the socio-economic profile of organic food consumers in Rajasthan. The study found that respondents from both rural and urban areas were aware of organic food products; however, urban respondents were more aware comparatively. Organic food was available in both areas, but more accessibility was found in urban areas. A similar level of affordability was found among respondents from both urban and rural areas for organic food. Taste, price, and quality were the parameters identified by both urban and rural respondents that encourage them to use organic food products.[16]

A few studies have found a correlation between a positive attitude and the desire to purchase an organic product.[17,18,19,20] The inclination of customers to purchase organic products before conventional products is regarded as the purchasing intention for organic products. Customers' good sentiments regarding organic products as ecologically beneficial are a result of their environmental worries, and the benefits they offer encourage consumers to purchase them.[21] However, studies have shown a connection between attitudes and intentions for word-of-mouth (WOM).[22,23] Studying this link in the field of organic products is rare, nevertheless. According to Harrison-Walker (2001), this study's interpretation of the WOM is an informal exchange between a person who isn't a salesperson going about their work and another individual who might be referred to as a receiver.[24] Moreover, according to Kaur et al.[25] , factors influencing consumers of organic food include safety, packaging, knowledge, attitude, ecological concerns, brand labeling, gender, values, age, and income. Subjective norms, driven by social pressures from friends and family, play a significant role in shaping consumer behaviour. Personal norms, on the other hand, stem from consumers' individual expectations. Customers who care more about the environment typically have happier attitudes, which will probably lead to more intentional behaviour. The primary determinants influencing green customers' decisions to buy products from organic agriculture were examined by Melovi et al.[26] The survey found that limited options and a poorly developed distribution channel, which were ranked first and second, are the biggest obstacles to customer purchases, with price having less of an impact.

Chowdhury et al.[27] stated that consumers find organic foods more appealing than conventional foods because of their higher nutritional content, improved health and environmental protection, and technical improvements. According to the survey, customer behaviour with regard to organic food is influenced by perceived price, perceived quality, perceived trust, environmental benefits, health-related concerns, lifestyle, and marketing approach. These elements are essential for starting their movement in the store that sells organic food. Therefore, in order to increase awareness of purchasing organic food, the government and individuals of all ages should speak out about the nutritional value, health issues, and product attributes of organic food.

Rroy et al.[28] highlighted that the escalating environmental degradation has spurred a rise in environmentally conscious consumer behaviour. Their study investigated the interplay between consumer behaviour, ecotourism, and the adoption of green products. Additionally, it aimed to evaluate the influence of consumer awareness on purchasing choices. The research underscored the importance of integrating ecological considerations into product design. It concluded that consumers' attitudes towards green products do not necessarily correlate with their purchasing behaviour, suggesting that other factors, such as product utility and consumer appeal, play a more decisive role in purchase decisions.

Abdullah et al.[29] indicated that the adoption of organic food has been seen as a crucial component of sustainable practices, with significant impacts on both the environment and human health. Initially, many consumers believed organic food to be safer and free from contaminants, prompting a shift in consumption habits towards organic products. The study's findings highlighted that the key factors influencing consumers' decisions to purchase organic products were price, product quality, and promotional activities.[29]

Maurizio et al.[30] conducted a study to explore the factors influencing Italian consumers' willingness to pay a premium for organic olive oil. Their research involved surveying a diverse sample of 332 consumers and analyzing their propensity to pay extra using a logit model. The study revealed that consumers demonstrate a readiness to pay higher prices for organic olive oil, a tendency that correlates positively with factors such as age, level of education, living in smaller households, regular consumption of organic food, and sourcing preferences from traditional outlets like producers, retailers, and supermarkets. The findings underscore the economic feasibility for olive oil farms to transition from conventional to organic production to meet consumer demands. This shift allows companies to strategically plan their medium- and long-term business strategies by anticipating customer preferences. Moreover, the study suggests that consumer awareness could benefit the broader community due to the significant environmental benefits associated with organic olive oil production, thereby generating positive environmental externalities.[30]

Overall, the literature reveals that while awareness, attitude, health concern, and trust play an important role in shaping perceptions and intentions, they do not always lead to actual purchase behavior. A notable gap exists between what consumers trust and what they ultimately purchase in the marketplace. Moreover, limited empirical evidence is available from Northeast India, particularly Assam. Addressing this gap, the present study integrates cognitive, attitudinal, social, and market-related factors to examine their influence on consumers' actual purchase behavior toward organic food products in an emerging urban context.

METHOD

The study is descriptive and quantitative in nature. The study was conducted in Kamrup Metropolitan District, Assam, an emerging urban market with increasing exposure to organic food products. A total of 400 responses were collected through a structured survey questionnaire, employing a five-point Likert scale ranging from "strongly disagree" to "strongly agree", which is widely accepted for capturing consumer perceptions,

attitudes, and behaviour intentions. The data collection was based on a convenience sampling method, wherein respondents were selected based on their accessibility and willingness to participate. The study included only adult consumers with prior awareness of organic food products. Consumers were approached at organic food retail outlets, supermarkets, local markets, and residential areas within the Kamrup Metropolitan District. Data were collected through direct personal interaction to ensure clarity of questions and completeness of responses.

Descriptive statistics were used to analyse the demographics of the sample. Cronbach's Alpha Reliability Coefficients were used to measure the reliability of the instrument, and it was found to be above the recommended level. A Multiple Linear Regression Model was developed to assess the degree of impact from each determinant on factors to purchase organic food, and a stepwise Regression Model was developed to emphasize the key determinants of key factors of purchasing organic food products. The dependent Variable of the study is Actual Purchase Behaviour (APB), while the independent variables include knowledge, health, food safety, perceived price, subjective norms, trust, availability, quality, awareness, attitude, overall satisfaction, purchase intention, and word of mouth. Prior to interpreting the regression results, the fundamental assumptions of linear regression were examined to ensure model validity. The empirical relationship between the determinants and actual purchase behaviour is represented by the following regression model:

$$APB = \alpha + \beta_0 K + \beta_1 H + \beta_2 FS + \beta_3 P + \beta_4 SN + \beta_5 T + \beta_6 A + \beta_7 Q + \beta_8 AW + \beta_9 A + \beta_{10} OS + \beta_{11} PI + \beta_{12} WOM$$

Where α represents the intercept, and β_i coefficient capture the magnitude and direction of the effect of each independent variable on actual purchase behaviour.

Respondent Profile

The study was conducted among consumers residing in the Kamrup Metropolitan District of Assam, representing a diverse demographic background in terms of gender, age, education, occupation, and income, ensuring adequate heterogeneity for meaningful analysis. Respondents included both males and females across various age groups, with a majority belonging to economically active age categories, reflecting a consumer segment actively involved in household purchase decisions. The sample comprised married and unmarried individuals from nuclear and joint families, with varying family sizes and numbers of earning members.

In terms of educational qualification, the sample comprised respondents with no formal education up to higher secondary level, graduates, and a substantial proportion of post-graduate and above, and were engaged in different occupations such as business/self-employment, government and private sector employment, professional services, and retirement. Monthly household income levels ranged from below ₹30,000 to above ₹90000, ensuring income heterogeneity.

Overall, the demographic profile of the respondents indicates a balanced and representative sample suitable for identifying and examining the key factors influencing consumers' actual purchase behaviour toward organic food products.

RESULTS AND DISCUSSION

This segment presents the detailed interpretation of the regression results obtained from the study. The objective was to determine the factors influencing the buying behaviour of organic food. The regression model was conducted to examine the combined effect of knowledge, health, food safety, overall satisfaction, price, availability, quality, subjective norms, trust, attitude, purchase intention, word of mouth, and awareness on the Actual Purchase Behaviour. The ANOVA table (table 1) indicates that the regression model was statistically significant (F= 36,061, p< 0,001). This shows that selected predictors together explain a substantial amount of variation in consumers' actual purchasing behaviour. The R^2 value is calculated as 0,528, which indicates that 52,8 % of the variation in the dependent variable, i.e., Actual purchase, is explained by the independent qualitative variables in our regression model. This indicates a moderately strong to strong relationship between predictors and the dependent variable, Actual purchase behaviour.

Table 1. ANOVA[a]

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	22,020	12	1,835	36,061	,000[b]
Residual	19,693	387	0,51		
Total	41,713	399			

a. Dependent Variable: SQRT_APB
b. Predictors: (Constant), knowledge, health, food safety, overall satisfaction, price, availability, quality, subjective norms, trust, attitude, purchase intention, word of mouth, awareness.

Among all the predictors examined, purchase intention emerged as the strongest and most positive determinant of actual purchase behaviour (table 2). The regression results indicate that purchase intention (β = 0,449, p < 0,001) is both highly significant and practically influential. This implies that a one-unit increase in purchase intention results in a 0,449-unit increase in actual purchase behaviour. In other words, consumers who display stronger willingness, readiness, or planning to buy are far more likely to proceed with the purchase. This clearly suggests that purchase intention successfully translates into behavioural action. Consumers with firm intentions have typically evaluated the product, perceived its value, and mentally committed to purchasing, thereby increasing the likelihood of conversion from intention to actual purchase. This finding is consistent with established consumer behaviour theories, particularly the Theory of Planned Behaviour, which emphasizes intention as the most immediate and powerful predictor of behaviour.

Table 2. Results of Regression Analysis Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	,878	,168		5,214	,000
Knowledge	-,004	,021	-,007	-,205	,838
Food safety	-,008	,017	-,018	-,488	,626
Overall Satisfaction	-,026	,022	-,056	-1,165	,245
Price	,068	,017	,229	4,142	,000
Availability	,098	,016	,338	6,278	,000
Quality	-,084	,024	-,188	-3,428	,001
Subjective Norms	-,003	,018	-,011	-,187	,851
Trust	-,010	,013	-,034	-,729	,466
Attitude	-,022	,021	-,056	-1,067	,286
Purchase Intention	,188	,030	,449	6,196	,000
Word of Mouth	,059	,031	,138	1,881	,061
Awareness	-,004	,088	-,002	-,046	,963

Product availability also plays a crucial facilitating role. Availability ($\beta = 0{,}338$, $p < 0{,}001$) is a strong and statistically significant predictor, meaning that a one-unit increase in availability leads to a 0,338-unit increase in actual purchase behaviour. This highlights that when products are easily accessible, visible, and conveniently available in nearby shops, consumers are more motivated and encouraged to purchase. Easy availability reduces effort, time cost, and uncertainty while enhancing convenience, which in turn strengthens the likelihood of purchase even among consumers who may otherwise remain hesitant.

Overall, the findings emphasize that enhancing purchase intention through persuasive marketing strategies, positive brand perceptions, and consumer trust, combined with ensuring robust product distribution and accessibility, significantly increases the probability of converting consumer intention into actual purchasing behaviour.

Another important aspect influencing consumer decision-making is pricing. The findings reveal that price ($\beta = 0{,}229$, $p < 0{,}001$) has a positive and statistically significant effect on actual purchase behaviour, indicating that a one-unit increase in price sensitivity leads to approximately a 0,229-unit increase in actual purchase behaviour. This suggests that consumers in the study area carefully evaluate the price of the product and respond positively when they perceive it as reasonable, affordable, and offering value for money. When consumers believe that the price aligns well with their budget and the perceived benefits outweigh the cost, they are more confident and motivated to proceed with the purchase. Therefore, affordability and value perception play a crucial role in strengthening purchase decisions.

Interestingly, quality demonstrates a negative and significant influence on actual purchase behaviour. The results show that quality ($\beta = -0{,}188$, $p = 0{,}001$) implies that a one-unit increase in perceived quality is associated with a 0,188-unit decrease in actual purchase behaviour. This finding indicates that consumers who perceive very high quality may become more cautious, discerning, and evaluative, leading them to compare multiple alternatives before making a final purchase. Higher perceived quality may create expectations of premium positioning, which can extend the decision-making time and reduce immediate purchase actions. Additionally, high quality is often linked with higher pricing, which may create affordability concerns and restrict purchases, especially among price-sensitive consumers. Thus, while quality is valued, excessively high perceived quality may paradoxically reduce instant purchasing due to perceived financial burden or increased consideration of substitutes.

Overall, the results suggest that balanced pricing and perceived value play a more decisive role in driving actual purchase behaviour than very high-quality perception alone. Ensuring affordability while maintaining acceptable quality levels appears to encourage stronger purchasing responses among consumers.

On the other hand, other factors such as Knowledge, Health Concerns, Food Safety, Overall Satisfaction, Subjective Norms, Trust, Attitude, and Word of Mouth do not show any statistically meaningful effect on Actual Purchase Behaviour in the study. This indicates that variations in these factors do not significantly increase or decrease consumers' likelihood of making an actual purchase. Although these variables may shape consumers' perceptions, awareness levels, and overall evaluation of the product, they do not necessarily translate into real buying actions. This further suggests that consumers may possess adequate knowledge, feel aware of health and safety aspects, or even express concern about food safety standards; however, such awareness remains largely cognitive and does not move them toward actual purchasing decisions. Similarly, consumers may trust the product or develop a favorable attitude, but these psychological or emotional orientations do not automatically influence their final buying behaviour. Even word of mouth and subjective norms, which often shape social influence, were not strong enough to compel consumers to purchase. This implies that social approval or recommendations do not play a decisive role in driving actual buying behaviour in the study context.

Furthermore, overall satisfaction, although conceptually linked to loyalty and repeat purchase, was not found to have a direct and significant effect on immediate purchase actions. This highlights that satisfaction alone is insufficient unless supported by stronger behavioural motivators.

Overall, these findings emphasize a clear distinction between what consumers perceive, believe, or feel and what they actually do in the marketplace. The results underscore that behavioural

drivers such as purchase intention, product availability, and price exert a stronger and more direct influence on actual purchase behaviour than psychological drivers such as attitude, trust, health awareness, and satisfaction. In the study area, consumers seem to prioritize practical, action-oriented factors over perceptual or emotional considerations when making purchasing decisions. This insight is valuable for marketers and policymakers, as it highlights the need to focus on strengthening intention, ensuring accessibility, and maintaining affordable pricing rather than relying solely on awareness-building or attitudinal persuasion strategies.

CONCLUSION

The findings highlight that among all the variables examined, four emerged as the strongest and most decisive drivers of actual buying behaviour: Purchase Intention, Availability, Price, and Quality. These factors directly shape whether consumers move beyond thought and awareness to real buying actions. Purchase intention plays a central role. When consumers already plan or intend to buy a product, they are significantly more likely to convert that intention into an actual purchase. This shows that intention is not merely a psychological state; it is the most powerful behavioural trigger. A strong intention reflects readiness, confidence, and motivation, all of which reduce hesitation and strengthen purchasing commitment. Therefore, influencing and enhancing consumer intention through effective communication, brand credibility, and emotional engagement can substantially boost actual sales. Availability emerged as another crucial driver of purchase behaviour. When products are easily accessible, visible, and regularly stocked in nearby shops or markets, consumers are more encouraged to purchase. Availability reduces effort, time, and search costs, making the buying process smoother and more convenient, while price continues to playan important and practical role due to consumer's sensitivity to affordability and perceived value. Interestingly, perceived quality exhibited a negative association with purchase behaviour. While high quality generally reflects superior performance, it is often linked to higher cost or premium positioning. Consumers who prioritize quality may, therefore, purchase less frequently, treat such products as special rather than routine purchases, or become more selective and evaluative, thereby delaying buying decisions.

On the other hand, factors such as knowledge, health concern, satisfaction, trust, attitude, and word-of-mouth, although valuable in shaping awareness and perception, did not significantly determine whether consumers ultimately purchased the product. This means consumers may possess knowledge, have positive attitudes, feel satisfied, or even trust the product; however, these psychological and emotional influences alone do not guarantee that they will proceed to buy.

The study is subject to certain limitations. The reliance on non-probability sampling methods limits the broader applicability of the findings, and the cross-sectional design captures consumer behaviour only at a single point in time. Furthermore, the use of self-reported responses may introduce subjective bias.

Further research could address these limitations by adopting probability-based sampling, undertaking longitudinal analyses to observe behavioural changes over time, and examining additional moderating variables such as income, lifestyle, or regional differences. Extending the study across diverse geographic contexts would further enhance the understanding of organic food purchasing behaviour.

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CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

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Article

Socio-Economic Condition, Livelihood Pattern and Opportunities for Sustainable Intervention: A Rural Appraisal of Nameri, India

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Paridhi Brahma**
Chandan Goswami***

Abstract

Nameri National Park (NNP) is a major tourist attraction in Assam. Tourism in Assam is mostly nature-based and rural. NNP is also surrounded by rural areas inhabited by numerous tribal and non-tribal Assamese communities. The frontier villages of the National Park fall under the village forests category of the Assam Forest Regulation Act of 1891. The legislation prohibits any economic activity in those village forests that may impact the biodiversity of the National Park. This limits the residents' access to land rights, forest resources, livelihood options and decisions regarding enhancing their standard of living. In light of the challenges experienced by the residents of the village forests of NNP, this article is an effort to better understand the current socio-economic condition of the four village forests of Nameri. This work was carried out under the Special Assistance Programme of the University Grants Commission. The study identified and recommended five areas where livelihood intervention activities could yield favourable results. The authors argue that with a long-term realistic approach, efforts should primarily be focused on these areas. It is argued that if more non-agricultural livelihood options can be promoted and encouraged, overdependence on farming may be reduced. Nameri has significant potential to grow as a rural or cultural tourism destination. Given the favourable characteristics of the area, the tourism industry may prosper there if the right efforts are made. The study has also stressed the importance of the local youth as a human resource and the potential for developing sustainable alternatives to agriculture in the form of handicrafts and handloom and the production and distribution of arecanut plates. This article can be used as a guide for implementing livelihood generation/enhancement and capacity-building projects in these villages.

Keywords: *Assam, rural livelihood, protected area, sustainability*

Abstract

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Introduction

Most people in India reside in rural areas (Press Trust of India, 2013) and rely heavily on agriculture (Jena, 2021). The government's current job creation efforts have yet to yield encouraging results (The Economic Times, 2020). The livelihood prospects in the rural areas of Assam are also very few. According to the Ministry of Tribal Affairs' data, Assam has more than 500 village forests (Sabrangindia, 2022). Due to their socio-economic circumstances, lack of opportunities, and restricted access to resources, rural populations living close to forested areas are frequently marginalised and dependent on the resources of the forests for their survival (Adalina et al., 2014).

With regard to providing these rural households with essentials and other sources of income, forests play a crucial role (Bijaya et al., 2016). In reality, numerous studies have shown that forest resources are a regular source of income augmentation for rural people (Shackleton et al., 2007; Bijaya et al., 2016). Due to encroachment and removal for agricultural purposes, forest areas have been rapidly diminishing (Kobayashi, 2004). Since the local inhabitants in the periphery areas depend on forest resources for their daily needs, denying them access to such resources impacts their way of life. It causes conflicts between the residents and the government and the invasion of forest regions (Uwemeye et al. 2020).

Nameri National Park (NNP) is a major tourist attraction in the Sonitpur district of Assam, India. Tourism in Assam is mostly nature-based and rural. NNP is also surrounded by rural areas inhabited by numerous tribal and non-tribal Assamese communities. The frontier villages of the National Park fall under the village forests category of the Assam Forest Regulation Act of 1891. The legislation prohibits any economic activity in those village forests that may impact the biodiversity of the National Park. This limits the residents' access to land rights, forest resources, livelihood options and decisions regarding enhancing their standard of living. Since they lack land *patta* (land rights), they cannot sell, lease, or mortgage their property during a financial crisis or obtain loans from banks against it. Protected Areas (PAs) like NNP can be effectively maintained only if tourism, conservation, and community livelihood are harmonious. Thus, sustainability is being emphasised in the tourism industry and other development-related fields, which is currently given high priority (Saikia & Goswami, 2018).

Residents' attitudes and behaviour toward the environment and forest resources are largely impacted by the advantages it provides for their way of life (Reggers et al., 2016). In Nameri, there have been instances where some people have developed a reputation as notorious poachers, engaged in conflict with forest officials, lost their means of subsistence, and, if not provided with alternative sources of income, have remained a constant threat to exploit the natural resources. Because these communities constitute the NNP's boundaries, a positive relationship between them and their natural surroundings may lessen the Park's external risks. Numerous intervention strategies and policies are required in this regard. Such policies and their results are typically influenced by the communities' access to viable livelihood options (Zhao, 2013).

In light of the challenges experienced by the residents of the village forests of NNP, this article is an effort to better understand the current socio-economic condition of the four village forests of Nameri. A study has yet to evaluate the socio-economic scenario and the livelihood of the marginalised forest communities of Nameri. This study also aims to investigate and identify prospective areas for sustainable development policy guidance. Understanding the residents' existing situation may facilitate discussions on improvements to their standard of living. This article can guide government officials, NGOs, financial institutions, and others to implement livelihood generation/enhancement and capacity-building projects in these villages.

Methodology

NNP is situated on the eastern Himalayan foothills in the northern Sonitpur District of Assam. Jia Bhoreli River borders the west of the 200 sq. km. National Park, while the Bor-Dikorai River borders the east. The Pakke Tiger Reserve in Arunachal Pradesh is located to the north. Four Nameri National Park peripheral villages were chosen for the study—Dharikati, Uttar Dharikati, Potasali/Torajan, and Sonai Miri. The villages are in the Indian state of Assam's Chariduar sub-district of Sonitpur district. The southern limit of

the NNP core region marks the location of all four settlements, which are village forests.

A structured schedule with closed and open-ended questions was prepared to gather socio-economic and demographic data about the households in the survey area. Data were collected in March 2022 through a door-to-door survey. Every home in the study region was visited, and those who could and would participate were asked for information. Ideally, the household's head was asked to participate in the survey. The survey took each responder between 30 and 35 minutes to complete. Due to insufficient responses, only 263 of the 300 gathered schedules could be used. Following that, descriptive statistics were employed to present the survey results. In addition, field visits were made for community-based rural evaluations, to map local resources and to speak with local weavers and craftspeople.

Table 1: Sample size of the study

Villages	Households
Potasali/Torajan	60
Dharikati	**62**
Uttar Dharikati	72
Sonai Miri	69
Total	263

Socio-economic scenario in the fringe villages

The survey found numerous families from various Assamese indigenous communities reside in the study area. In fact, the bulk of village homes were inhabited by indigenous people. The Musings of Assam were the most prevalent tribe in the region, making up around 36% of all households (refer to Figure 1). In addition to them, other Assamese tribes like the Boros and Rabhas made up around 6% of the population, and non-tribal Assamese people made up about 38% of the households. Nearly 20% of all families were made up of Nepali-speaking Assamese people.

Potasali/Torajan village comprised the highest percentage of non-tribal Assamese residents among the four villages. In the Assamese villages of Dharikati and Uttar Dharikati, the Mising community predominates, while most houses in Sonai Miri are Assamese who speak Nepali. The survey results indicate that Nameri is noteworthy for having many diverse groups with unique ethnic identities in such a small area. All of these communities have distinctive cultures and priceless traditional knowledge.

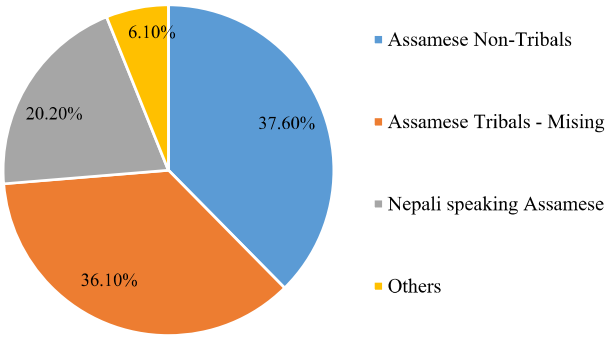

Figure 1: Community of the villagers

Even though nuclear families comprised most households (59.3%), a sizable portion of people lived in joint families (40.7%). The average family size is around five, while more than one-fourth of the households (32.3%) reported having a family of four. The total population of the surveyed households consisted of 1301 family members. The proportion of males (n=655) and females (n=649) in the total household members is roughly equal. The households comprised 957 adult members and 345 children under the age of 18 years.

Among the adults, those between 26 and 35 were the majority (22.21%), followed by those between 18 and 25 (16.6%). About 26% of the total population was under 18 (Figure 2). Thus, a large percentage of the population was younger. This is interesting because if the young population can be successfully transformed into a trained, knowledgeable, and efficient workforce, this characteristic could be a positive strength for the area's economic development.

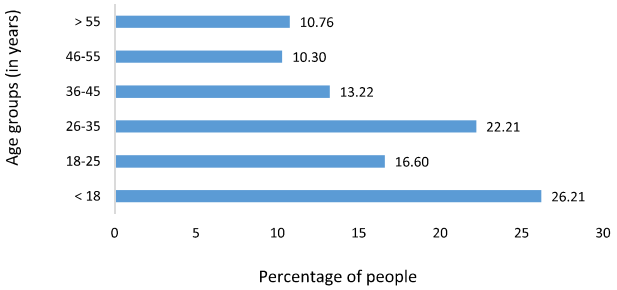

Figure 2: Age of the household members

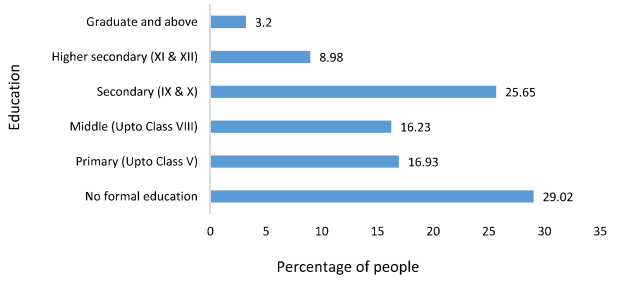

Figure 3: Education qualification

The field survey, however, showed that the region's educational climate could be more promising. Most people (29%) lacked formal education (Figure 3). The percentages of people with primary-level education (up to class V) and medium-level education (up to class VIII) were around 16 and 17%. Nearly 26% of those surveyed had completed secondary school (class IX or X). Only approximately 9% of the population had completed higher education (class XI or XII), and only about 3% had graduated from high school or obtained a higher degree. More persons need the necessary training or skills to participate in activities from a tourism standpoint. Guides from other regions have abused the situation because there aren't any qualified or experienced locals.

Entrepreneurial pursuits in tourism or other areas have also been restricted due to a lack of capital and credit access. They mostly rely on their savings for business, agricultural operations, and emergencies. However, households typically borrow money from friends, family, or other family members when they need credit. Among banks, self-help groups (SHGs), and moneylenders, the SHGs were more popular among households because of their credit needs. Results suggest that 26.6% and 28.5% of households borrow money from SHGs for emergencies and agricultural/commercial purposes. About 61% of the households have a family member who has joined some SHG. Most SHGs are connected to the Chariduar Branch of the Assam Gramin Vikash Bank in Sonitpur. Figure 4 shows that in times of financial need, households are more likely to turn to SHGs and moneylenders than to banks for their financial needs. This may be due to the lengthy documentation or approval processes in banks. The distance between banks and the villages may also be a possible explanation since the closest bank is about 10 kilometres away.

On the other hand, the villagers are least likely to turn to money lenders for their agricultural or commercial credit needs. This is mostly because of the higher interest rates imposed by money lenders. People are inclined to approach money lenders only in an emergency.

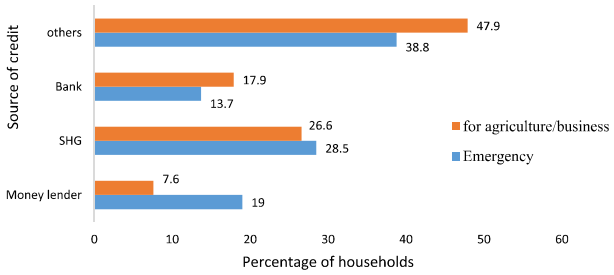

Figure 4: Prefered source of credit

Since many respondents felt uncomfortable disclosing their genuine income, it was impossible to estimate the average income of the households. Therefore, the households' financial situation was assessed based on the assets they owned, such as pakka houses, vehicles, televisions, land area, and livestock, as well as other factors like the number of dependents and employed members. Most households' financial situation was observed to be on the weaker side. Furthermore, 70% of the households reported having access to the provisions Below Poverty Line (BPL).

Regarding healthcare, the closest hospital is located in the Chariduar Center, around 7 to 10 kilometres from the villages. Only 13.4% of the families could afford to pay for medical care in case of an accident or severe illness of any member. A little under 37% of families claimed they could afford it but only with

great difficulty, while 26.8% could afford it with little difficulty. Only around 15% of households could afford such care without borrowing money. About 7% of the households needed help to afford such treatment.

Livelihood pattern of the village households

According to the research, 37% of the residents worked for a living in some capacity, compared to 63% of people who were jobless, homemakers, students, or seniors. As shown in Figure 5, farmers comprised the bulk of employed people, followed by wage workers. According to survey responses, nearly 70% of homes had at least one farmer in the family. Similarly, at least 30% of the homes had at least one family member engaged as a wage earner. About 15% and 10% of all households had at least one family member working in the service and retail sectors, respectively. It should be mentioned that the central government's NREGA program's advantages hardly ever reached the research area's rural communities. According to the survey, 63% of families had at least one member registered under NREGA. However, in the previous year, they mostly did not obtain any work under the scheme or just occasionally did.

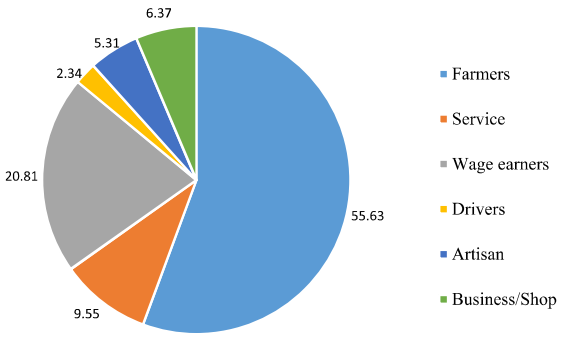

Figure 5: Primary Occupation of the households

Agri-based livelihood:

It was discovered during the field visits that the inhabitants of the forest villages are concerned about losing their ownership of their land. Plantation drives are passively discouraged in the villages because the residents worry that the re-emergence of forest regions may risk their land rights in the future and possibly result in their displacement. However, the soil here is highly fertile. Commercial crops like paddy, arecanuts, tea, black pepper, betel leaf, lemon, bhut jolokia, and litchi are farmed on a sizable scale. Even Tezpur Litchi varieties with G.I. patent were successfully cultivated in the area as part of the area expansion plan of the Department of Agriculture, Assam.

The survey participants were asked to rank their primary source of household income in terms of their mode of livelihood. The results showed that "food grains/crops/vegetables" had the most responses in both rank 1 (54.8%) and rank 2 (27.8%). It demonstrates the villagers' reliance on agricultural outputs for survival. According to the findings, about 70% of households are involved in rice farming (refer to Figure 6), which explains why rice is the region's most widely grown crop. In addition, 24.5% of families grow spice crops, while over 62% of households grow leafy vegetables. The survey discovered that up to 90% of the households have arecanut plantations on their land in addition to other plantations and horticulture crops (refer to Figure 7). It is followed by banana plantations, which account for 65% of households, while bamboo (53%) and coconut (51%) are next. The size of the farmers' land holdings significantly influenced the quantity and variety of their crops since farmers with larger land holdings tended to diversify their plantations.

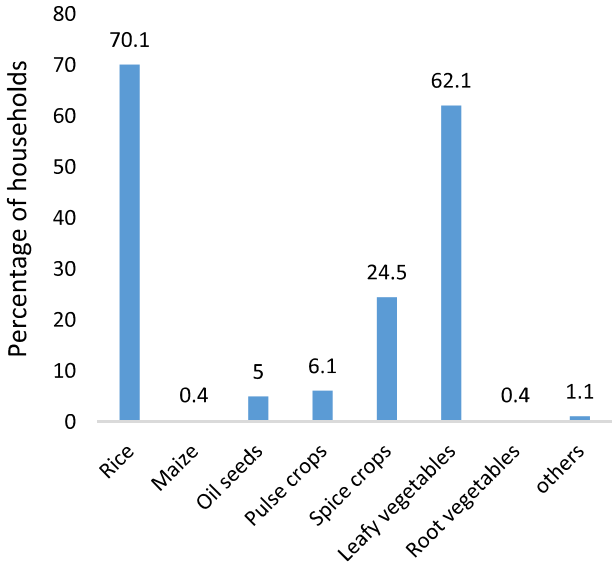

Figure 6: Agricultural crops being produced by households

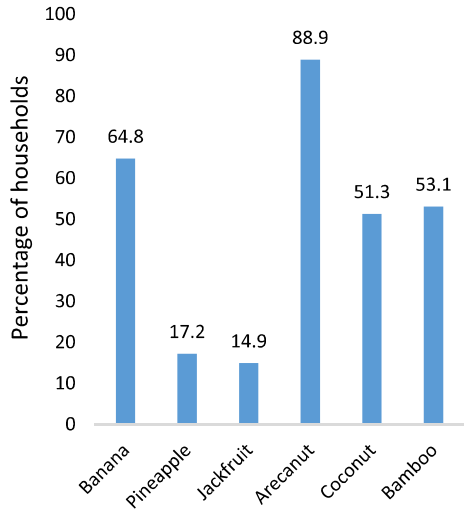

Figure 7: Plantation/ horticultural crops

According to the survey, the majority (66.4%) of people who cultivate agricultural or other crops utilise the products for both their own consumption and for selling. However, they only sell when there is excess production. A little under 29% of the households produce for their own consumption and cannot sell their surplus. Conversely, less than 1% of households (0.4%) raise crops exclusively for sale. Most households (31%) sell their extra produce to the village merchants, followed by purchases in the nearest wholesale market (27.5%).

Although it is usual to do farming and livestock raising simultaneously, integrated farming in a broader economic sense is nearly nonexistent. Nearly 93.5% of the families reported having some livestock in their residence. However, most households (84.8%) do not rely on raising livestock as a source of income. The lack of capital may be the biggest deterrent to practising integrated farming. Clearly, households raising livestock as a primary activity and farming were in a better financial position than other households that engaged only in farming. It was also discovered that more members were involved in farming in the families that practised integrated farming. A strong correlation could also be observed between the households' economic position and the quantity of livestock held. With some financial assistance and training, the households can be encouraged to engage more actively in agricultural and animal-rearing operations, perhaps creating new sources of income for them.

Handicrafts, handlooms, and artisanship

About 47% of the families reported having at least one member involved in artisanal or handicraft activity. Of the four villages, Dharikati has the most of these houses. Around 76% of Dharikati's families are familiar with handicraft or artisanship activities. With 51% of the homes, Uttar Dharikati is next. Nearly 80% of individuals involved in handicraft and artisanship are female, whereas just 20% are men. Their primary line of work is weaving (69%), followed by tailoring (28%), both dominated by women. It is followed by the primarily male-focused trades of carpentry (15%) and masonry (16%).

As already mentioned, the Mising community predominates among those living in the clusters. The Musings are skilled weavers noted for their exquisite, vivid, and colourful patterns. For the Mising women, weaving was traditionally a need. This custom has been successfully maintained by the Musings of Nameri. The materials they weave on looms include the mekhela chador, gamusa, muffler, bag, waistcoat, cushion cover, handkerchief, mobile bag, elephant pants, and dupatta. Although the presence of these weavers and their products is favourable for the tourism industry, it is regrettable that most homes involved in artisanal or handloom activities (50.4%) produce the items for their own use. About 38% of the weavers sell locally to villagers if they receive orders, but such sales are not frequent. Some sell them to local businesses or NGOs. Only a few weavers engage in regular weaving, but they often receive orders along with raw materials from local NGOs. The respondents in the survey who were already weaving or planned to start were asked if they would be open to additional training in the future to advance their craft. The majority of them (55%) gave a positive reply.

In Nameri, traditional creativity is also evident in the bamboo craft sector. Anyone visiting Nameri will see bamboo constructions made with skill and artistry. These were created by Mr. Pratap Das, a self-taught bamboo craftsman from Potasali/Torajan specialising in bamboo work. His creations include bamboo homes, furniture, trinkets, and kitchenware.

There are others with expertise in this field as well. However, farming continues to be their primary source of income.

NNP and tourism livelihood

The Nameri National Park (NNP) was formed in 1988. The NNP is renowned for its variety of birds, and it is the only National Park in Assam that permits trekking within its central region. It is located within 120 kilometres of Kaziranga National Park, a Natural World Heritage Site, and falls on a major bird-watching tourist circuit of Northeast India (Guwahati- Kaziranga- Pakke- Eaglenest circuit). Additionally, Nameri is situated in a prime spot along the popular Guwahati-Kaziranga-Dirang-Tawang tourism route. Due to its conservation values, the NNP has also been incorporated into the Sonitpur Elephant Reserve. Tourism is prevalent in the Park. Since these are forest villages, the forest department is in charge of overseeing any development there. Visitors interested in nature travel from all over the world due to NNP's apparent attractiveness. The region's tourism industry has prospered due to the rising number of visitors. The primary recreational activities are bird-watching, trekking, rafting, village excursions, cycling, shopping for souvenirs, and other pursuits like sampling local cuisine.

On the river, Jia Bhorali, rafting is available, beginning at the 13-mile stretch and continuing until Nameri Potasali ghat. Around 60 boatmen from the villages are employed in part. The abundance of avifaunal species along the river's banks offers numerous opportunities for bird viewing. In addition to trekking and rafting, the lodging facilities arrange ethnic village tours based on visitor demand. These trips frequently include farm visits, interaction with local residents, village walks to exhibit rural life, cultural performances by local groups, demonstrations of traditional weaving techniques, local cuisine and drink, story-telling sessions, etc. Cycling in the countryside may occasionally be combined with village tours. The Assam Bhoreli Angling Conservation Association's (ABACA) Golden Mahseer Brood Tank, the Pygmy Hog Conservation Program's Potasali breeding facility, and the Tourist Interpretation Centre are some of Nameri's additional points of interest.

Due to the area's apparent popularity, other tourist camps have sprouted up, aiding Nameri's tourism industry. The data shows five homestays and nine visitor camps are close to Nameri National Park (Table 2). Not all of them fall inside the research area, even though they are close to the National Park. Some camps have employed and trained local youths in hospitality and the culinary arts. During the tourist season, several people work in the camps to earn their daily living. It should be highlighted that all of the tourist camps feature local artwork and workmanship. The other units are privately owned except for Nameri Eco-Camp and Prashanti Tourist Lodge.

Table 2: Tourist accommodations near Nameri National Park

	Name	Location
1.	Nameri Eco-Camp	Potasali
2.	N-Palky Camp	Torajan
3.	Baligora Eco Camp	Torajan
4.	Lalimou Camp	Uttar Dharikati
5.	Nameri Jungle Camp	Torajan
6.	Whistling Bamboo Eco-Stay Camp	Torajan
7.	White Winged Camp	Potasali
8.	Prashanti Tourist Lodge (Govt. owned)	Uttar Dharikati
9.	Nameri Kanyaka Resort	Gamani
10.	Nyishi Homestay	Phuluguri Nyishi Gaon
11.	Mising Homestay	BaliGaon Miri
12.	Garo Homestay	Bakola Gaon
13.	Bodo Homestay	Khari Dimapur
14.	Nepali Homestay	Sonai Nepali

In Nameri, three souvenir shops are located close to the Potasali range office. One of these is administered by the Dony Polo Mahila Samiti (a women SHG) and is situated on the grounds of the Nameri eco-camp. The other two are the Xunaru Vastralaya and Xunaru. Mrs. Oli Agarwala of the Nameri Eco-Camp began training programmes in the adjacent villages 2003. Since then, annual programmes have been held to train a new group of females. Bags, mekhela chador, scarves, mufflers, shawls, stoles, and gamusa are among the handcrafted items that Xunaru purchases

and sells on behalf of eight SHGs. Xunaru also offers pickles made in the area for sale.

The valuable handcrafted goods made by the locals need to be improved in marketing and promotion. The shortage of market demand could be a byproduct of such a scenario. It should be noted that Nameri lacks a dedicated, user-friendly informational portal that can aid in promoting local homestays, community resources, and other natural and cultural attractions. With the right marketing, local communities may profit from tourism. It might increase their standard of living and lessen their reliance on agriculture and forestry. If properly promoted, tourism can develop into a reliable source of income for the surrounding areas. The existence of certain skilled labourers in the outlying villages has contributed to the success of tourism businesses in Nameri up until this point. But there are not many of these people around. For instance, the locals need more qualified bird guides. Due to low pay or a lack of market connections, the number of weavers and artisans is also dropping. These problems might impede the expansion of tourism in the region.

Problem Inventory of the Villages

A participatory rural appraisal (PRA) was conducted for the study's community benefit. Rural appraisal and natural resource management both frequently involve PRA activities (Chambers, 1994). The participants' information was used to inventory the villages' problems. Based on their opinions, an NSL (now, soon, and later) chart was created to identify and prioritise the areas that needed interventions (Figure 8).

The chart clearly highlights the deficiencies in essential public services that the locals mentioned. As could be seen, the locals placed a high school and a hospital above all other demands. Agricultural and tourism-related requirements are among the top priorities that should be addressed soon, but they take time and effort. The locals need help with irrigation during the dry months. Additionally, they lack sufficient market connections and cold storage or warehousing facilities for their agricultural products. As a result, they cannot make a good living from farming.

Regarding tourism, the villagers emphasised two issues where proper attention by the government institutions or authorities is needed: promoting the villages' tourism infrastructure and resources and greater community awareness of tourism. They added that other challenges they encounter there include the issue of minor floods during the rainy season, a lack of public transit, and poor road conditions. They nonetheless listed them under the less important priorities.

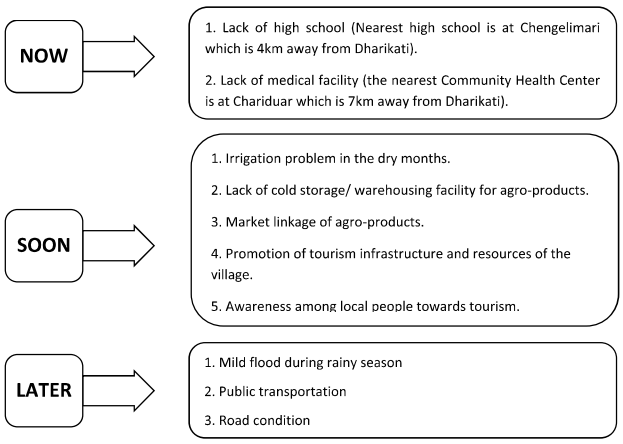

Figure 8: Prioritization of problems using NSL Chart

Potential areas for livelihood intervention

The study makes five crucial recommendations for sustainable livelihood intervention in Nameri. The first two areas relate particularly to tourism, while the third and fourth points are agro-based. The fifth area pertains to handicrafts and handloom. The authors argue that with a long-term realistic approach, efforts should primarily be focused on these areas. Success in this regard could lead to sustainability and enable the marginalised communities of the villages to survive and become economically stronger.

More thrust on rural and cultural tourism

Nameri has certain desirable qualities as a travel destination. In addition to being a natural tourist site, the area is home to numerous indigenous communities, each with its own distinct cultural identity. The Misings, Bodo, Assamese, Garo, Nepali, and Nyishi communities are among them. It elevates Nameri as a desirable cultural travel destination. The area also has potential as a rural tourism destination

because of its bucolic beauty. These opportunities remain untapped or underutilised due to a lack of awareness among the people.

There is plenty of room to apply the community-based tourism (CBT) model in the villages, especially in light of these potential benefits. The CBT model, which uses local assets to establish a sustainable tourism-based economy, may benefit the entire neighbourhood without income leakage. It will also assist in protecting forest resources by lowering reliance on forest-based livelihood. However, it will require the support and involvement of the entire community. Successful implementation will help to preserve the communities' cultural assets and traditional knowledge. It will also instil a sense of pride among the residents. The forest department and the tourism authorities have a key part to play in this. Apart from that, the success and failure of other rural or cultural destinations can provide valuable insights while planning for Nameri.

6.2. Specialized guide training programmes

The survey revealed that quite a few young people in the villages lack jobs. Most lack training and trade skills to prepare them for jobs or businesses. If sufficient training is offered for capacity building, especially for the local tourism industry, such youth could be important human resources. There is a dearth of qualified guides in the region. It could be useful if specialised guide training programmes for the local youth are organised, notably in birding and avitourism.

In Nameri, the riverbed provides a significant area for bird watching. Since bird sightings coincide with rafting on the Jia Bhorali River, the boatmen who row them are also good candidates for avitourism guide training programmes. Awareness campaigns should start at the school level to inspire young people to embrace sustainable tourism practices and the importance of the industry as a source of income. The government should seriously consider the demand for educational amenities because education always plays a positive role in preparing the youth. This requirement is due to the low level of education in the communities.

6.3. Arecanut tableware production and marketing

The survey revealed several arecanut plantations in the region. Nearly every home has arecanut trees, a significant commercial crop in Assam. A census survey was conducted during subsequent field trips to determine the total number of arecanut plantations in the area. The total plantation area in the villages was around 370 bighas (Table 4).

Table 4: Arecanut plantation in the area

Name of the village	Area under plantation (in bighas)			
	<7 Years	7-14 Years	>14 Years	Total area
Dharikati	35.00	15.50	42.50	93.00
Sonai Miri	21.00	9.50	58.50	89.00
Uttar Dharikati	26.00	26.75	88.00	140.75
Torajan/ Potasali	1.00	17.00	29.50	47.50
Total area	**83.00**	**68.75**	**218.50**	**370.25**

The villagers typically sell the arecanuts in the neighbourhood market for about Rs. 30-35 per kilogram. The arecanut leaves are typically thrown and have no economic use. However, evidence from other places shows that it is possible to make disposable plates and cups from the arecanut palm leaves, making them a potential eco-friendly alternative to plastic and polymer plates. Areca plates are in great demand, especially after lockdowns began during the Covid outbreak (Parashar, 2020). Companies like Tamul Plates Distributing Pvt. Ltd. in Assam (Aithal & Dasgupta, 2018) and Prakritii Cultivating Green in Delhi (Mansur, 2021) effectively manufacture and market tableware made from arecanut sheaths. The areca plates are recyclable, environmentally friendly, and quickly biodegradable. They may be cast into various forms and sizes and are leak-proof, light, strong, and microwavable.

Additionally, they can be used for packaging. Areca plates are also an excellent option for buffet parties or restaurants (Ecomaniac, n.d.). Establishing such a unit would greatly benefit the rural population of Nameri by providing stable employment.

Although initially unaware of this potential idea, the locals stated their willingness to gather and sell the sheaths if there was a market. A micro-market may develop if the demand for disposable tableware can be tapped, particularly in the neighbouring Tezpur

town with numerous prestigious organisations. Establishing a biodegradable sector in the surrounding area may further boost the National Park's appeal. Future possibilities include using arecanut sheaths to create packaging materials that would be sold to tourists. Additionally, this programme may change the demand for livelihoods based on agriculture or tourism. These products can be distributed to neighbouring communities to keep the prices low initially. The products can be made mandatory in the tourist camps near NNP to eliminate single-use plastics from the region. The best aspect, though, is that with a small expenditure of time and effort, such an intervention might benefit the community quickly. The entire production process can be easily executed by the women workforce. The collection of sheaths can also be done from other nearby villages. Further, if building such a unit close to NNP is not permitted, such sheaths can be gathered and delivered to firms in or outside Assam.

Sericulture

Another important finding was the ease with which the "som" tree, the host tree for the silkworms responsible for producing Eri and Muga silk, flourishes in the region. Eri and Muga silk, which is extremely valuable commercially, is mostly used to weave traditional handloom in Assam. In fact, Muga culture is native to that region, and the state produces the most Muga silk in the world (Directorate of Sericulture, n.d.). Only 11 kilometres away from Nameri in Chariduar, the Department of Sericulture of the Government of Assam also operates a Muga Food Plantation Center. Potential growers receive free seedlings from the Center. Muga and Eri Silk are essentially Vanya (wild) Silks. Even though the state produces four types of silk, Muga and Eri production is the most significant. Assam alone contributes 95% of India's total Muga production and 65% of its total Eri production (Directorate of Sericulture, n.d.). The people of Uttar Dharikati are raising silk worms presently, but they don't cultivate "som" trees since they perish in the rainy season. Undertaking measures to boost the practice of sericulture in the area could be a crucial step in the people's interest. It will require knowledge and expertise of the Department of Sericulture and constant government support.

Handloom/handicraft

The domestic handloom market is primarily unregulated. Its importance stems from providing rural residents with culturally relevant livelihood opportunities (Meher, 2022). The villages in Nameri enjoy the presence of many skilled female weavers. However, the majority of them need to be more active in the marketplace. They need more market connections to sell their finished items. It affects their bargaining power, which makes them unable to fetch fair prices for their products. Their lack of savings, rising raw material costs, and domestic responsibilities prevent them from participating in this activity. In addition, the handloom sector in India was severely hit during the COVID-19 lockdowns (Meher, 2022).

In this context, a significant push from the government and/or civil society is required to support the rural residents of Nameri and motivate them to engage in this traditional occupation more intensely. In addition to financial support, suitable marketing facilities, proper training, and affordable raw material access are crucial. Sufficient market linkage, which was found to be lacking, should be established to maintain the output. Such a market can complement the tourism industry in the area. In addition to bird watching and other outdoor activities found in nature, these products can bring more tourists to the area or at least provide them with another option as an experiential activity.

In Nameri, tourists also need value-added souvenirs. Embroidered guitar straps, passport sleeves, coasters, wine bags, and car seat cushion covers are just a few of the suggested simple keepsakes that may be manufactured utilising the Mising weaves. Since the value-added goods are only aimed at the mass tourists who want to bring something back from Nameri, they will not directly compete with traditional clothing. Contrarily, traditional clothing will satisfy the needs of specific customers who desire only authentically traditional items. Weavers can create these items in the slow tourist season and market them during the peak season. Additionally, it could benefit this industry to use online marketing strategies.

Conclusion and Recommendations

The current study provides a broad overview of the socio-economic and livelihood situation in the NNP's periphery settlements. These villages are a mash-up of many Assamese tribal and non-tribal groups. Due to a lack of economic growth and prospects for a living, the local forest communities are marginalised and deal with numerous challenges. The locals continue to live according to their native customs. The survey highlights the fact that their sources of income are not diverse. The majority still work in agriculture, and their over-reliance on this industry has contributed to their poor economic progress. Over-reliance on farming may decrease if more non-agricultural livelihood options can be supported and fostered. If efforts are correctly made, the tourism business will thrive there, given the favourable characteristics present in the area.

Due to the existence of NNP, Nameri has been primarily advertised as a natural destination up to this point. However, Nameri has significant potential to grow as a rural or cultural tourism destination. Given the importance of community relationships and cultural uniqueness in the region, it is necessary to more aggressively stress its rural and cultural elements so that tourism in Nameri may expand beyond environmental tourism. The villagers will welcome and favour such a concept since it will allow the entire community to gain from tourism rather than just a select few. Such a scheme will also aid in the prevention of any income leakage from the villages. In this regard, the authors would like to advocate for developing a long-term plan for the region by carefully taking advantage of the available opportunities. Nameri's natural and cultural riches ought to be adequately promoted, especially on online channels.

The study emphasises the value of local youth as a human resource. However, initiatives for their capacity building and skill development are necessary. Given the significance of avitourism in NNP, emphasis should be placed on youth-specific avitourism guide training programmes. The study also emphasised the possibility of creating sustainable livelihood alternatives through handicrafts, handloom, sericulture, and manufacturing and distributing arecanut plates. Weaving was discovered to be a popular activity among the ladies. Strong market ties for their handmade products could also encourage this industry's growth. The development of weavers and artisans has been hampered, and entrepreneurship in the region has been discouraged by the lack of financial access and institutional credit facilities. Better financial access and educational opportunities are crucial for enabling the locals to engage in various activities. Acknowledging the beneficial effects of education and awareness campaigns on encouraging tourism in local areas is also important.

The development of Nameri and its people may be significantly aided by the active support of the government, NGOs, and educational and financial institutions. Any conflicts or disagreements related to conservation efforts for NNP can be reduced by a cooperative relationship between local stakeholders and the government authorities that benefits the communities and aids in poverty alleviation. In future, studies that examine the dynamics of rural livelihoods in terms of community development might also aid policymakers in developing successful household and community-level policies. More emphasis on the part of the authorities is necessary to create alternative livelihood choices in Nameri, given the issues the locals face and the challenges posed to NNP by encroachment and declining forest cover.

Acknowledgement

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BODHAK

Multidisciplinary Perspectives

A Multilingual Book of Research

Edited by

Dr. Pranjit Kumar Nath
Dr. Malabika Sarma
Dr. Joyanta Deka
Dr. Ashifuddin Ahmed Saikia

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The term '*Bodhak*', rooted in Sanskrit, signifies "one who awakens or enlightens." This concept is at the heart of the volume's purpose: to foster intellectual enlightenment through cross-disciplinary engagement. The collection of research articles from diverse fields aims to break down the silos that often separate academic inquiry, creating space for a more holistic and interconnected understanding. In the modern world, where the complexities of global challenges often demand insights from multiple domains, the multidisciplinary approach of Bodhak is both timely and essential. By embracing a multidisciplinary perspective, the volume encourages readers to think critically about how knowledge in one field can enrich our understanding of others. This book will be of immense help to the prospective students, policy makers, scholars and researchers.



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A Comprehensive Volume

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A Peer Reviewed Edition

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A Comprehensive Volume

Editors

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CHAPTER-3

TOWARDS HEALTHIER CHOICES: A STUDY ON CONSUMER AWARENESS OF ORGANIC FOODS IN KAMRUP METROPOLITAN DISTRICT OF ASSAM, INDIA

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❖ ABSTRACT:

In recent years, organic food consumption has significantly increased, driven by a growing urban population and rising consumer awareness around health, nutrition, food quality, and environmental sustainability. This shift in consumer preferences has led many businesses to market organic foods as niche, premium products, catering to the rising demand for healthier and more natural options. India's organic food industry, traditionally focused on exports, is now witnessing rapid growth in the domestic market as well. However, understanding consumer awareness remains essential, as knowledge about the benefits and unique attributes of organic products is crucial for driving sustainable demand. This study seeks to assess the level of consumer awareness regarding organic food products within the Kamrup Metropolitan District of Assam, shedding light on local consumer perceptions and the factors influencing organic food choices in this region. The study illustrates a promising scenario for the organic food sector. High awareness levels combined with substantial purchasing behaviour suggest that consumers are not only informed but are also actively engaging with organic products. The sample's

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longstanding familiarity and general awareness suggest that the region is well-suited to support a strong organic product market. The study insists that marketing strategies that emphasize health and environmental benefits may be more effective than those focusing solely on brand promotion. Marketing efforts aimed at promoting organic products could benefit from a stronger online presence and engagement through social media, rather than relying heavily on traditional word-of-mouth methods. Tailoring educational and promotional efforts to target younger audiences, while also considering strategies to engage older consumers, could help bridge the awareness gap and enhance overall market penetration in the organic food sector.

Keywords: *Organic products, sustainability, consumer awareness, purchase behaviour, health benefits*

1. INTRODUCTION

In today's world, consumers are increasingly aware of the negative health impacts of chemicals in food products. This heightened health consciousness has led to a significant rise in demand for environmentally friendly options, particularly organic foods. As awareness grows regarding the harmful effects of non-organic food, more consumers are choosing organic products as a safer alternative (Basha et al., 2015). This shift in consumer preferences has captured the attention of academics, businesses, the media, governments, and NGOs, all recognizing the need for a sustainable and healthy environment. In many developed countries, food consumption has reached saturation, leading to an extensive range of food options for consumers and fostering greater diversity in consumer preferences. As a result, marketing strategies, distribution plans, and food quality have become increasingly important in today's highly competitive food market. Organic food production, grounded in traditional farming practices, is both environmentally friendly and aligned with the needs of eco-conscious consumers. Organic food is produced without artificial chemicals, such as synthetic fertilizers and pesticides, or genetically modified organisms (GMOs). According to the Organic Foods Production Act of 1990, animals raised for organic food, including meat, eggs, and dairy products, must not be given antibiotics or growth hormones (Duram, 2019). Melovic et al. (2020) note that organic products not only promote health and safety but also support sustainable development and environmental preservation.

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Historically, Indian diets have favoured fresh, locally grown fruits, vegetables, pulses, and meat, cultivated naturally without synthetic chemicals. However, in recent decades, Indian agriculture has shifted significantly, moving from traditional natural fertilizers to chemical-based fertilizers and pesticides to boost yield and accelerate growth. This shift aimed at meeting increasing demands has also raised concerns about health and sustainability. In response, India is now seeing a resurgence in organic farming. Recent data shows that India produced approximately 1.24 million metric tons of certified organic products, covering a diverse range of items like vegetables, pulses, spices, tea, cotton, oil seeds, basmati rice, fruits, and their value-added products (Bhardwaj & Mishra, 2022).

In Assam, many farmers continue to rely on traditional agricultural methods. Assam's unique landscape—characterized by fertile plains, hilly terrain, rich biodiversity, wetlands, and plentiful rainfall—creates favourable conditions for organic farming. The region produces various organic crops, including tea, Joha rice, and lemons. Companies like Chamong Tee Exports Private Limited identified Assam's organic tea's export potential in the 1990s. High-demand organic products, such as medicinal rice varieties like Joha and Ukhura, as well as passion fruits and organic green tea, have encouraged more farmers to adopt organic practices (Bonia, 2019). Despite Assam's potential as a hub for organic food production, the export market for its organic products remains relatively small. Data from the Agricultural and Processed Food Products Export Development Authority (APEDA) reveal that in 2016-2017, only two northeastern states, Assam (11 metric tons) and Meghalaya (1 metric ton), exported organic products (Mukherjee, 2017).

Though the potential for organic food product market is high, the industry has not grown significantly in the state. The market for other organic products from the region is still underdeveloped (Mukherjee, 2017).To examine the factors behind the slow growth of the organic food market in the region and to propose effective policy measures, it is essential to first understand the awareness, usage and attitude of current and prospective consumers. Studies on consumers and their consumption behaviour could yield valuable insights for formulating appropriate marketing strategies for the overall growth of the segment. These insights are vital for driving the expansion of the organic food sector, as they help align industry efforts with consumer expectations and needs. In the above

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context, the present study is an attempt to explore the consumer awareness towards organic food products in Kamrup Metropolitan district of Assam. The customers in urban areas are likely to have more access to organic food products and information related to such products. Thus, Kamrup (Metropolitan), with the highest concentration of urban population in the state, presents the best setting to explore and understand the phenomenon.

2. REVIEW OF LITERATURE

Review of existing literature reveals a multitude of factors that influence consumer purchasing behavior, particularly in the context of organic food products. Key motivations for purchasing organic foods often include product quality, health and environmental concerns, and lifestyle choices (Basha et al., 2015; Chowdhury et al., 2021). According to Chowdhury et al. (2021), consumer behavior towards organic food is shaped by perceived price, perceived quality, trust in the product, environmental benefits, health-related concerns, lifestyle, and marketing strategies. Thatte et al. (2016) established a strong correlation between educational attainment and awareness of organic food, noting that individuals with higher incomes tend to spend more on these products. Furthermore, research by Rahman et al. (2016) indicated that attitudes and subjective norms significantly influence purchase intentions, particularly when perceived behavioral impact is low.

Aruljothi (2018) explored the gap between consumer expectations, perceptions, and satisfaction regarding organic food products, suggesting that rising health concerns and increasing awareness of the benefits associated with organic foods could drive market growth. In a study focusing on Rajasthan, Kumawat (2018) found that urban consumers exhibited greater awareness of organic foods, attributed to better accessibility in urban areas. Both urban and rural respondents identified taste, price, and quality as key factors motivating their organic food choices. Rroy and Nayak (2022) noted that growing environmental degradation has led to an increase in environmentally conscious consumer behavior, while also evaluating how consumer awareness impacts purchasing decisions. Their findings suggest that consumer attitudes toward green products do not always align with actual purchasing behaviors, with factors like product utility and appeal playing a critical role.

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Attitude remains a fundamental determinant in major theoretical frameworks, such as the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and the Theory of Planned Behavior (Ajzen, 1985). Research indicates that a positive attitude towards organic foods correlates with higher consumer satisfaction (Vermeir & Verbeke, 2006; Kim, 2018; Martinez, 2020). Paul and Rana (2012) found notable differences in satisfaction levels between organic and non-organic products. Several studies underscore the importance of satisfaction in building trust in organic products (Konuk, 2018; Imaningish, 2019). Martinez (2020) further examined the interplay between attitude, satisfaction, and trust in shaping purchase intentions, concluding that satisfaction is the most significant driver of both purchase intent and consumer recommendations.

Although the relationship between satisfaction and consumer behavior has been extensively studied (Ryu & Han, 2010), fewer studies focus specifically on organic food products in this context (Lu & Chi, 2018; Konuk, 2019). Notably, even when consumers express intentions to buy organic products, this does not always lead to actual purchases (Singh & Verma, 2017). Previous research has highlighted discrepancies between consumer attitudes and actual behavior (Defra, 2006; Hughner et al., 2007; Wheale & Hinton, 2007; Vermeir & Verbeke, 2008), with factors such as price and availability often contributing to these gaps (Singh & Verma, 2017). Additionally, socio-economic variables, including age, gender, income, and education, play a significant role in influencing consumer decisions regarding organic food purchases (Paul & Rana, 2012).

3. RESEARCH METHODOLOGY

This study adopts an empirical and descriptive framework, primarily utilizing a quantitative research approach. Data collection is conducted through surveys, relying on primary data gathered via a structured questionnaire administered in a field survey setting. Specifically, this study targets adults aged 18 to 65 from the Kamrup (Metropolitan) district. A total of 400 responses were collected and finalised for the purpose of this study. The study mostly used descriptive analytical tools such as frequency distribution and cross tabs. Statistical analysis such as correlation, independent t-test and one way ANOVA were also employed in the study.

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4. RESPONDENT PROFILE

The study included 400 participants, of whom 39% (n=156) were male and 61% (n=244) were female. The majority of respondents (48.5%) were aged 18–30, followed by those aged 31–40 (32.5%). Most respondents were married (55.8%) and part of nuclear families (80.8%). A large proportion of families had 3 to 4 members (70.3%), with another 16.8% having 5 or more members. About 39% of families reported having two income earners, while 29.3% had three, and 23.8% had only one. In terms of education, more than half of the respondents held a postgraduate degree or higher (56%), followed by graduates or diploma holders (38.8%).

In terms of occupation, the data indicates that one-fourth of respondents were employed in the private sector, while 17% were self-employed or business owners, and 14.5% worked in government or public sector roles. A notable 33% were engaged in other types of work, showing a diverse range of occupations among participants. Only a small portion identified as professionals (5%) or retired pensioners (3%), suggesting a sample with fewer respondents in these categories. Household monthly income data reveals that the majority of respondents earned between Rs. 30,000 and Rs. 70,000. Specifically, 25% had a household income of Rs. 50,001–70,000, while 23.3% fell within the Rs. 30,000–50,000 range. Another 23.5% had a monthly income exceeding Rs. 90,000, indicating some representation from higher-income households. Meanwhile, 13.5% reported a household income of less than Rs. 30,000.

5. RESULTS AND DISCUSSION

To explore people's awareness regarding organic food products, respondents were asked whether they were aware of the term "organic food". All 400 respondents confirmed their awareness, indicating that organic food is a well-recognised concept among the sample population. None of the respondents indicated unfamiliarity with the term organic food. This high level of awareness suggests that organic food is a commonly known concept and not new to the participants.

Respondents were also asked about how long they have been aware of organic food. The respondents varied significantly, as shown in Table 1. The data suggests that organic food has been widely known in the region for a substantial period. Over half of the participants have been

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aware of organic food for more than 5 years indicating a long-standing familiarity with the organic food concept, suggesting that organic food has been part of the region for a considerable time. This sustained consciousness suggests that organic food is a constant topic of attention and understanding, suggesting that it is not just a sudden trend. About one-fourth of the respondents (25.5%) have known about organic food for 3-5 years and 17% of the respondents have known about it for 1-3 years. It shows that awareness has been increasing in the past few years. A relatively low percentage of participants (6.3%) have been aware of organic food for less than a year.

Table 1: Duration of Awareness

Duration of Awareness	Frequency	Percent
Less than 1 year	25	6.3
1-3 years	68	17.0
3-5 years	102	25.5
More than 5 years	205	51.3
Total	400	100.0

The overall awareness level of the respondents was assessed using a scoring system ranging from 1 to 5, where a score of 1 indicates very low awareness and a score of 5 signifies very high awareness. The results revealed that a significant majority of respondents reported a high level of awareness: 75.5% (n=298) assigned a score of 4, while approximately 13% (n=53) rated their awareness with a score of 5. Additionally, 12.3% (n=49) of respondents chose a score of 3, and notably, none provided scores of 1 or 2. The mean awareness score was calculated at 4.01, suggesting that most respondents perceive their awareness regarding organic food products to be high (refer table 2).This high level of awareness can facilitate marketing efforts and product acceptance, suggesting a conducive environment for the growth of organic food markets.

Table 2: Level of Overall Awareness

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Overall Awareness Level	400	3	5	4.01	0.506

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Table 3: Awareness regarding different aspects of organic food

	Minimum	Maximum	Mean	Std. Deviation
Health Benefits	2	5	3.96	0.463
Environmental Benefits	2	5	3.96	0.440
Location	2	5	3.58	0.607
Brands	2	5	3.51	0.571
Symbols And Certifications	3	5	3.66	0.499

Upon further examination of respondents' awareness regarding various aspects of organic food products, the study found that consumers are primarily informed about the health benefits and environmental benefits associated with organic foods, each receiving the highest mean score of 3.96. These findings indicate that the advantages of organic products in promoting personal health and contributing to environmental sustainability resonate strongly with consumers. Following these aspects, awareness of symbols and certifications received a mean score of 3.66, suggesting that consumers recognize the importance of official certifications in identifying organic products. Additionally, awareness of the location of organic food sources scored 3.58, indicating a moderate understanding of where organic foods are produced. In contrast, awareness of brands scored the lowest at 3.51, highlighting a potential gap in brand recognition within the organic food market.

The results of the correlation analysis (refer to Table 4) reinforce the findings regarding consumer awareness of organic food products. Specifically, while most aspects of awareness, such as health benefits, environmental benefits, symbols and certifications, and location, exhibited significant positive correlations with the overall awareness level of respondents, awareness of brands did not demonstrate any significant correlation. This lack of correlation suggests that while consumers recognize the advantages and certifications associated with organic foods, their awareness of specific brands may not influence their overall understanding or perception of organic products. This could indicate that consumers prioritize the intrinsic benefits of organic foods over brand identity, which may limit brand loyalty in this market.

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Table 4: Correlation between overall awareness level and awareness regarding different aspects of organic food

Overall Awareness Level	Awareness				
	Health Benefits	Environmental Benefits	Location	Brands	Symbols & Certifications
Pearson Correlation	0.506*	0.284*	0.259*	0.078	0.311*
Sig. (2-tailed)	0.000	0.000	0.000	0.120	0.000

Significant at 0.05 level of significance

Table 5: Analysis of overall awareness of respondents in terms of socio-economic factors

Socio-economic factors	Statistical test used	F	Sig.	df
Gender	Independent Samples T-Test	3.647	0.057	398
Marital status		0.227	0.634	398
Family type		0.515	0.473	394
Age	One-way ANOVA	3.114	**0.026***	3
Family size		0.849	0.429	2
No. of earning members		1.575	0.195	3
Educational Qualification		3.689	**0.012***	3
Occupation		0.754	0.583	5
Monthly household income		0.449	0.773	4

Significant at 0.05 level of significance

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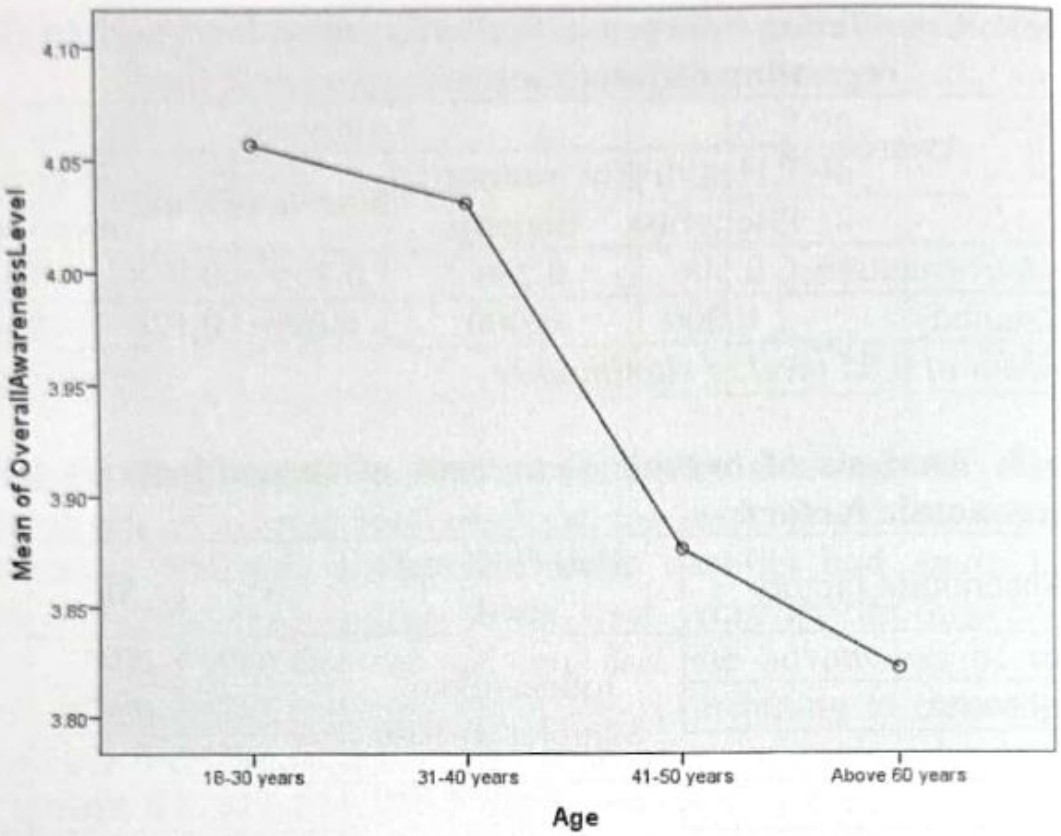

Fig. 2: Overall awareness in terms of age

The overall awareness of the respondents was also analysed with their socio-economic profile in order to identify significant differences. The results (refer table 5) indicate that only two factors- age and educational qualification have significant relationship with overall awareness level. However, post-hoc analysis did not yield any meaningful insights into which specific sub-groups within the age and education categories differed significantly regarding their awareness levels. Despite the lack of clarity in the sub-group comparisons, the data suggest that younger consumers generally exhibit higher awareness of organic food products compared to older consumers (refer figure 2). This trend suggests that age may influence the receptiveness to and understanding of organic food products, possibly due to differing lifestyles, values, or access to information. Younger consumers, often more engaged with digital platforms and social media, might be better informed about the benefits and availability of organic foods. Conversely, older consumers may have less exposure to contemporary sources of information or differing priorities that affect their awareness. On the other hand, individuals with higher educational qualifications demonstrated lower mean awareness levels. This unexpected finding may imply that higher education does not necessarily correlate with greater awareness of organic foods, potentially

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indicating a disconnect between educational attainment and engagement with organic product information.

To explore how various information sources influenced awareness of organic food, respondents were asked to rank seven key sources based on their perceived effectiveness (refer table 6). The analysis revealed that the internet emerged as the most effective source of information, indicating that a majority of people rely on online resources to learn about organic food compared to other avenues. Following closely, social media ranked second, while television and radio secured third place. In summary, the hierarchy of effectiveness in creating awareness about organic food is led by the internet, followed by social media and traditional broadcast media.

Table 6: Sources of information

Rank	Source
1	Internet
2	Social- Media
3	Television & Radio
4	Magazines & Journals
5	Newspaper
6	Promotional Activities by the companies
7	Friends or Relatives

Conversely, the least effective source identified was friends or relatives, suggesting that word-of-mouth recommendations and personal influence from acquaintances have minimal impact on raising awareness about organic food products among respondents. This finding highlights a shift toward digital platforms as primary information channels in today's information landscape.

6. CONCLUSION

The study illustrates a promising scenario for the organic food sector. High awareness levels combined with substantial purchasing behaviour suggest that consumers are not only informed but are also actively engaging with organic products. This positive consumer sentiment may pave the way for further growth in the market. However, addressing the small percentage of non-consumers could enhance market reach. Strategies could include educational initiatives and promotional activities to raise awareness and interest among those who are currently

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non-consumers, which would ultimately benefit the overall market dynamics for organic foods. The sample's longstanding familiarity and general awareness suggest that the region is well-suited to support a strong organic product market. It reinforces the need for targeted efforts to sustain and possibly grow this consumer base by addressing the concerns or barriers that deter the small percentage of non-consumers. By promoting the benefits of organic food, businesses and policymakers advocating for organic products can build on this foundation, potentially increasing the adoption of organic products even further.

While consumers are well-informed about the intrinsic benefits of organic foods, there is less familiarity with branding, which may impact their purchasing decisions. The higher scores for health and environmental benefits imply that marketing strategies focusing on these aspects could be effective in further engaging consumers. Additionally, these insights highlight the need for brands to enhance their visibility and recognition among consumers. Marketing strategies that emphasize health and environmental benefits may be more effective than those focusing solely on brand promotion. Efforts to enhance brand awareness, perhaps through targeted advertising or educational campaigns that inform consumers about their specific offerings and certifications, could help bridge the knowledge gap and potentially increase consumer loyalty and sales within the organic food segment.

The study also provides a clear illustration of how different sources are perceived in terms of their effectiveness, emphasizing the growing importance of digital media in shaping consumer awareness and perceptions of organic food. This suggests that marketing efforts aimed at promoting organic products could benefit from a stronger online presence and engagement through social media, rather than relying heavily on traditional word-of-mouth methods. Age and education appear to play a crucial role in shaping awareness levels regarding organic food products. These insights highlight the complexity of factors influencing consumer awareness in the organic food sector. While age appears to positively influence awareness, the relationship between education and awareness warrants further investigation to understand the underlying reasons for the lower awareness among more educated individuals. Targeted educational initiatives that bridge this gap could be beneficial, ensuring that all demographic segments are well-informed about the benefits and availability of organic products.

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Education, Society, Language & Literature

Edited by:
Dr. Pranjit Kumar Nath
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Dr. Karabi Kakati
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Harmony in Consumption : Exploring Green Consumerism in Kaziranga

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ABSTRACT

This paper delves into the dynamics of green marketing in the periphery of Kaziranga National Park, specifically focusing on the attitudes of the local youths towards eco-friendly products. Biodiversity hotspots like Kaziranga are crucial for global conservation but face significant threats from unsustainable practices. Green marketing has emerged as a potential strategy to mitigate these challenges by promoting products that emphasize sustainability, recyclability, and reduced environmental impact. A mixed-methods approach was employed among 200 rural youths. The study aimed to assess their environmental awareness, attitudes towards green products, and the influence of green marketing on their purchasing behaviour. Findings revealed that over 80% of

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respondents were aware of environmental issues such as deforestation and habitat loss, largely due to their direct interaction with local ecosystems. Despite this awareness, there was a significant knowledge gap regarding the specific benefits of sustainable practices. The 'affective attitude' towards eco-friendly products scored highest, indicating a strong preference for such products. However, the 'conative attitude' scored lowest highlighting a low likelihood of purchasing eco-friendly products due to barriers such as affordability and limited availability. The study also assessed willingness to compromise on product attributes. Quality was the least negotiable factor, while there was greater flexibility regarding appearance. Retail outlets were preferred for purchasing, with eco-friendly packaging and green disposal emerging as top priorities. Green marketing campaigns significantly influenced attitudes and behaviours, especially among younger participants. Key recommendations include ensuring the affordability and availability of eco-friendly products, developing educational campaigns, encouraging community engagement, and leveraging digital platforms and referral marketing. By addressing these barriers and promoting sustainable practices, this study aims to foster a culture of environmental stewardship among rural youth, contributing to the conservation of Kaziranga's unique biodiversity.

Keywords : Consumer behaviour, Eco-friendly products, Green marketing, Sustainable consumption, Rural youth

INTRODUCTION

Biodiversity hotspots are regions characterized by exceptional concentrations of endemic species and facing imminent threats such as habitat loss and climate change (Myers et al., 2000). These areas play a crucial role in global biodiversity conservation efforts due to their unique ecological significance and high species richness. Rural areas near biodiversity hotspots are often characterized by rich natural resources and ecosystems that are crucial for global biodiversity conservation. However, these regions also face challenges such as habitat destruction, deforestation, and loss of biodiversity due to unsustainable practices including agriculture,

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logging, and resource extraction. While the urban landscape grapples with pollution, the rural areas are also now confronted with the unintended consequences of industrialization. Green marketing has emerged as a potential strategy to mitigate these challenges. The harmful effects of environmental contamination, climate change, and industrial waste have propelled the evolution of green marketing and sustainable marketing practices. Green marketing involves promoting products and services that are environmentally friendly, emphasizing attributes such as sustainability, recyclability, and reduced environmental impact (Kotler, 2011). It encompasses strategies that emphasize sustainability, energy efficiency, recyclability, and ethical sourcing to appeal to environmentally conscious consumers (Chan & Lau, 2014).

Kaziranga National Park, situated in the northeastern state of Assam, India, is a region of rich biodiversity. Home to the iconic Indian one-horned rhinoceros, among other endangered species, the park draws attention not only for its wildlife but also for the delicate balance it maintains with its surrounding communities. The literature review, however, indicatesthat the exploration of green marketing dynamics in the context of wildlife conservation areas have been scarce. Kaziranga, with its unique blend of wildlife and rural settlements, presents an opportune setting to bridge the gap between ecological preservation and consumer behaviour. Theoretical frameworks such as the Tri-Component Attitude Model offer a nuanced lens to understand the cognitive, affective, and conative dimensions of rural youth attitudes towards eco-friendly products. Understanding the attitudes of rural youth towards eco-friendly products holds the potential to influence their purchasing behaviour, thus indirectly impacting the waste generated in the periphery of the park. Reduced consumption of non-biodegradable materials contributes to the conservation of the park's flora and fauna.

Considering this, the researcher has tried to explore the attitudes of rural youth in the vicinity of Kaziranga National Park towards eco-friendly products, recognizing the potential impact of their choices on the fragile ecosystems that coexist with human

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settlements. Kaziranga relies heavily on tourism for its revenue. The study's findings can inform the development of sustainable marketing strategies that not only attract eco-conscious tourists but also contribute to the overall conservation efforts by promoting responsible consumer behaviour among the local populace. The findings of the study may foster a deeper understanding of the community's perceptions and preferences, providing a foundation for tailored environmental education programs. Empowering the rural youth with eco-friendly choices can create a ripple effect, influencing the entire community towards more sustainable practices. The idea is to strike a balance between modern consumerism and the preservation of traditional practices, ensuring that eco-friendly choices align with the cultural ethos of the region.

LITERATURE REVIEW :

Green Marketing and Green Consumerism

Green marketing is all about integrating environmental considerations into every aspect of a company's marketing strategy. This includes product design, pricing, distribution channels, and promotional activities, as highlighted by Kotler (2011). Companies engage in green marketing not just to stand out in the market but also to attract environmentally conscious consumers and boost their corporate social responsibility (CSR) image (Ottman, 2011). Research shows that green marketing can significantly influence consumer behaviour by increasing awareness and preference for eco-friendly products (Chan & Lau, 2014).

Green consumerism is driven by a desire to make purchasing decisions that are good for the environment. This growing trend sees people opting for products and lifestyles that align with sustainability principles. Theories like the Theory of Planned Behavior (Ajzen, 1991) and the Value-Belief-Norm (VBN) Theory (Stern, 2000) help explain this shift. Green consumerism involves choosing products with eco-labels, buying energy-efficient appliances, supporting companies with strong CSR practices, and reducing the consumption of goods that have a high environmental

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impact (Biswas& Roy, 2015). People are motivated by personal values, environmental concerns, health considerations, and social influences (Griskevicius et al., 2010). Essentially, these consumers are looking for products and services that reflect their commitment to sustainability, environmental responsibility, and social ethics (Luchs&Mooradian, 2012)

Consumer Attitudes Towards Green Products

When it comes to green products, consumer attitudes can be understood through cognitive, conative, and affective aspects. How people perceive green products is not just about what they know (cognitive), but also how they feel (affective) and what they intend to do (conative). These dimensions help explain how people think, feel, and behave regarding environmentally friendly products.

Cognitive aspects refer to the knowledge and beliefs that consumers hold about green products. Research shows that consumers who are well-informed about the positive environmental impacts of green products are more likely to develop favourable attitudes towards them (Kollmuss&Agyeman, 2002). Effective green marketing strategies often focus on educating consumers about these benefits to influence their purchasing decisions (Ottman, 2011). Conative aspects pertain to the behavioural intentions and actual purchasing actions of consumers. This includes the willingness to pay more for green products and the likelihood of choosing them over non-green alternatives. Studies indicate that strong environmental concerns can lead to a higher intention to purchase green products (Joshi &Rahman, 2015). However, barriers such as higher costs and limited availability can hinder these positive intentions from translating into actual purchases (Thogersen, 2012). Affective aspects involve the emotions and feelings associated with green products. Positive emotions, such as a sense of pride and satisfaction from making eco-friendly choices, can significantly enhance consumer attitudes towards green products (Hartmann &Apaolaza-Ibáñez, 2012). Emotional appeals in green marketing campaigns can therefore play a crucial role in motivating consumers to prefer and purchase green products.

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The Role of Environmental Education

Environmental education is key to fostering green consumerism, especially in nature-based destinations. Studies show that people who have a higher level of environmental knowledge and awareness are more likely to adopt sustainable behaviours (Aguilar-Luzón& Padilla-Meléndez, 2016). Green marketing can be very effective in shaping consumer behaviour by raising awareness about environmental issues and promoting a preference for eco-friendly products (Ottman, 2011). However, there are several barriers that prevent young people from fully embracing green consumerism. These include the perceived high costs of eco-friendly products, their limited availability in local markets, and a lack of information about the environmental benefits of green alternatives (Griskevicius et al., 2010). Overcoming these barriers requires targeted efforts (Thogersen, 2012). Economic considerations, lack of awareness, and perceived inconvenience are major obstacles to sustainable consumption behaviors (Dolnicar, Lazarevski, &Yanamandram, 2009). Understanding these challenges is crucial for developing effective strategies to promote green consumerism.

Nature-Based Destinations and Community Attachment

Nature-based destinations, known for their natural beauty and biodiversity, provide a unique setting to study green consumerism. Residents in these areas often have a deep connection to their environment, which shapes their attitudes and behaviors towards sustainability (Gössling& Scott, 2012). They typically feel a strong attachment to their communities and natural surroundings, significantly influencing their sense of environmental responsibility and green consumerism (Kyle, Mowen, & Tarrant, 2004). The influx of tourists in these areas can have mixed effects on local green consumerism. On one hand, tourism can lead to environmental degradation, making it more urgent for residents to adopt sustainable practices (Fredline& Faulkner, 2000). On the other hand, exposure to eco-friendly tourism practices can inspire residents to embrace green consumerism (Lindberg & Johnson, 1997).

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By understanding the human side of green marketing and consumer behaviour, we can better appreciate the motivations and challenges people face in adopting sustainable practices. This perspective can help in designing more effective strategies to promote environmental responsibility and support the growing trend of green consumerism.

METHODOLOGY

This study employs a mixed-methods approach, combining qualitative interviews and surveys with rural youths living in the villages surrounding Kaziranga National Park of Assam, India. The qualitative phase involves face-to-face interviews to explore perceptions of environmental issues and attitudes towards green marketing. The quantitative phase utilizes surveys to assess knowledge of green products, purchasing behaviours, and willingness to pay premium price for eco-friendly goods. The youth demographic, aged 15 to 29, becomes the focal point for data collection which were selected based on convenience sampling. The sample comprises of 200 local youths. Rural youths often have a strong connection to their natural environment but may lack access to information and resources promoting sustainable lifestyles (Zelezny et al., 2000). Engaging rural youths in environmental education and promoting green consumerism can empower them to make environmentally responsible choices (Villarino et al., 2022). Thus, it is vital to understand their awareness and attitude towards green consumption.

RESULTS AND DISCUSSION

Initially, more than 80% rural youths demonstrated awareness for environmental issues prevalent in their communities, including deforestation, habitat loss, and biodiversity degradation. This heightened environmental consciousness is often rooted in their direct interaction with local ecosystems, which are vital components of their livelihoods and cultural identity. Despite this awareness, there was a notable gap in knowledge regarding specific environmental threats and the potential benefits of adopting

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sustainable practices. On a scale of 1-7, the mean awareness score came to 4.58 which indicate a generally positive level of awareness but not very high. A strong association between education and awareness is revealed in the study, underscoring the role of education in fostering environmental consciousness.

The study revealed that exposure to green marketing campaigns had a significant influence on the attitudes and behaviours of rural youths towards sustainable consumption. Participants indicated that advertisements promoting eco-friendly products and highlighting their benefits increased their interest and willingness to consider such products in their purchasing decisions. This influence was particularly evident among younger participants who were more receptive to new ideas and eager to align their consumer choices with environmental conservation goals.

The respondents generally showed a positive attitude, indicating strong potential for market penetration. The 'affective attitude' scored the highest, with a mean of 6.34, and over 70% of respondents demonstrating a preference for readily available eco-friendly alternatives. This was followed by the 'cognitive attitude' with a mean of 5.91, indicating that many respondents (65%) believe in the effectiveness of eco-friendly products. However, there is room for improvement in promotional messaging. The 'conative attitude' scored the lowest, with a mean of 4.64, reflecting a current low likelihood of purchasing eco-friendly products. This highlights the need for increased product availability and consumer education.

The study also assessed respondents' willingness to compromise on certain attributes for eco-friendly products. Quality was the least negotiable factor, with a mean score of 1.36, underscoring its paramount importance in purchasing decisions. On the other hand, there was greater flexibility regarding appearance, with a mean score of 4.2, suggesting an opportunity to emphasize the aesthetic appeal of eco-friendly products. Retail outlets were the preferred places for purchase, highlighting the importance of the physical shopping experience. Eco-friendly packaging and green disposal emerged as top priorities. Referrals and social media were

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also influential in promotion, underscoring the importance of trusted sources and digital platforms.

Despite their positive attitudes towards eco-friendly products, several barriers prevented rural youths from fully embracing green consumption practices. Affordability was a primary concern, with 84% of participants reluctant to pay premium prices for green products compared to conventional alternatives. Most consumers preferred only modest price increases. Additionally, the limited availability of green products in local markets, cited by 76% of respondents, often forced youths to prioritize convenience and affordability over sustainability.

Interviews with local youths revealed that access to accurate and relevant information is crucial in shaping their perceptions and behaviours towards green consumption. Participants stressed the importance of educational programs and initiatives to raise local awareness about environmental issues and sustainable lifestyles. Discussions within their social circles also played a significant role in influencing their awareness and encouraging the exploration of sustainable alternatives. Moreover, community-driven initiatives promoting local products and traditional ecological knowledge were positively perceived, fostering a sense of collective responsibility towards environmental stewardship.

SUGGESTIONS AND CONCLUSION

Preliminary findings indicate that rural youths living near biodiversity hotspots are increasingly aware of environmental issues but face significant barriers in accessing green products and information. While many express their interest in purchasing eco-friendly goods, affordability and availability remain significant challenges. Nonetheless, exposure to green marketing campaigns notably influences their perceptions and purchasing decisions, underscoring the potential of such strategies to promote sustainable consumption behaviours. Key Findings include:

1. **Awareness and Interest :** Rural youths near biodiversity hotspots show a growing awareness of environmental issues

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and a keen interest in purchasing eco-friendly products.

2. **Barriers :** The primary obstacles cited are the affordability and availability of green products.

3. **Influence of Marketing :** Green marketing campaigns significantly shape youths' perceptions and purchasing decisions, suggesting that these strategies can effectively promote sustainable consumption behaviours.

Based on the findings, following key recommendations are offered that can enhance the effectiveness of green marketing strategies targeting rural youths near biodiversity hotspots :

1. **Affordability and Accessibility :** To address the financial and logistical barriers, it is recommended to ensure the affordability and availability of eco-friendly products through partnerships with local businesses and initiatives aimed at reducing production costs.

2. **Education and Awareness :** Develop educational campaigns that highlight the environmental benefits of green products and offer practical guidance on adopting sustainable consumption practices.

3. **Community Engagement :** Encourage community-based initiatives that empower youths to actively participate in environmental conservation efforts and promote local ecological knowledge.

4. **Digital and Referral Marketing :** Utilize digital platforms and referral marketing to build trust and disseminate information, leveraging the influence of trusted sources and social media.

Overall, this study offers valuable insights for organizations aiming to engage rural youths in biodiversity conservation efforts through sustainable marketing strategies, particularly in the context of rural India. The study underscores the importance of tailored green marketing strategies that cater to the specific needs and preferences of rural youths near biodiversity hotspots. Green

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consumerism in nature-based destinations is a complex phenomenon influenced by individual attitudes, community dynamics, environmental education, and tourism impacts. Understanding these factors is crucial for developing targeted interventions that encourage residents to embrace sustainable consumption practices, thereby contributing to the preservation of their unique natural environments. By promoting eco-friendly products and fostering environmental awareness, marketers can empower rural youths to make informed and sustainable choices. Addressing barriers such as affordability, enhancing access to information, and leveraging community dynamics are essential steps in promoting eco-friendly. Partnerships between local communities, businesses, and conservation organizations can amplify the impact of green marketing initiatives, fostering a culture of environmental stewardship among future generations.

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Edited by

Saju Mathew • Mohd Faishal



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3

SUSTAINABLE TEA FARMING PRACTICES IN ASSAM
A Case Study of Hathikuli Tea Estate, Kaziranga

MANALISHA DAS, SUJIT SIKIDAR AND ASHIFUDDIN AHMED SAIKIA

1. Introduction

Over the past few decades, the tea sector has played a significant role in India's economy. Among all non-alcoholic liquids, tea is the most consumed product worldwide, with two-thirds of people drinking "Camellia sinensis" tea. As a result of colonization, tea's appeal has grown. Over 65 countries have various regions where tea is grown for commercial purposes. The main producers of tea are India, Bangladesh, Malawi, Tanzania, China, Kenya, Sri Lanka, Turkey, Vietnam, Indonesia, and Bangladesh (Maity, 2017). The largest tea-growing region in the world is Assam, a state in northeast India. According to the Tea Board of India (2015), Assam produces 52% of the tea produced in India and around 1/6th of the tea produced worldwide (Tea Board of India, 2017). Assam offers some of the best black tea in the world. In recent times, however, India has been lagging behind other countries in terms of exporting and producing tea (Paul & Mandal, 2021). Assam currently has a large number of aging tea gardens, which are becoming less productive. Over time, a great deal of the state's tea gardens have become sick

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because of poor infrastructure and the use of chemical pesticides and fertilizers during production. In order to improve quality and overall managerial excellence, such as cost-effectiveness, quality improvement, optimizing the tea supply chain, and identifying new export markets, the tea industry should be modernized through changes in plantation technique (Roy, 2011). One of the best ways to do this is through the cultivation and production of organic tea. The usage of chemicals is weakening the soil's sustainability and potency. The only way to boost a tea garden's productivity—which was steadily declining as a result of using chemical farming methods—is to apply organic manure. As a result, implementing organic farming practices helps tea gardens not only produce more tea leaves but also tap into the growing organic tea industry, which is driven by consumers' increased awareness of health issues. The absence of external inputs like pesticides and mineral fertilizers makes organic farming supposedly more environmentally friendly. Organic farming proponents stress the sustainability of their method, especially because it improves soil quality connected to organic matter, even if switching to organic farming usually results in lower crop yields (Leifeld, 2012).

Agriculture is essential to human survival. It is an important source of income, supplying fuel, food, and ecological services. It is the primary cause of ecological harm in the interim. It contributes to climate change by depleting freshwater resources, decreasing soil fertility, and releasing fertilizers and pesticides into the atmosphere. The production of food depends on these finites and deteriorating natural resources. Not only must there always be enough wholesome food available to everyone, but this food must also be produced with as little negative influence on the environment as possible. Accordingly, the agricultural system must be able to satisfy the needs of both the present and the future in order for agriculture to be sustainable.

An agricultural practice known as organic farming promotes the production of nutritious products devoid of harmful substances for both humans and the environment. The basic idea behind organic agriculture is to use only permitted ingredients to produce food with the best nutritional value and the fewest possible hazardous elements. The principles of organic agriculture demand strict adherence to predetermined standards that specify and restrict the methods that can be employed. One of the most significant sustainable agricultural systems is organic farming, and the

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methods (such as mulching, crop rotation, and intercropping) are applicable to many different types of agricultural systems. The use of almost no synthetic inputs and the necessity of "soil building" crop rotations, as outlined by numerous laws and certification schemes, are what set organic agriculture apart.

1.2 Organic Farming

The practice of organic farming involves avoiding or completely eschewing the use of pesticides and fertilizers that are manufactured artificially. To maintain soil productivity, organic farming systems rely on crop rotation residues, green manures, legumes, animal manures, off-farm organic wastes, and some biological pest control techniques. Organic farming is sometimes referred to as ecological or biological agriculture in several European nations since it relies more on ecosystem management than on synthetic or organic external inputs. (Hajra, 2006).

1.3 Organic Tea Practices in Assam

The Singpho people have been integral to Assam's tea industry, and it's possible that they were the first to popularise the idea of organic tea within the state's tea sector. Organic tea is becoming more and more popular in other regions as well. An increasing number of young people in Assam and the surrounding North Eastern States are producing organic tea as a result of the Singpho people's method. In this sense, the increasing global demand for organic tea has also had some influence. Margherita in the Tinsukia District in upper Assam and certain areas of Arunachal Pradesh are home to the majority of Singpho people. They utilize cow manure and vermin to construct their organic tea, and they don't use any chemical fertilizers. About 200 small and medium-sized tea gardens can be found throughout Margherita and Arunachal Pradesh, where 300 Singpho people make organic tea for their families either directly or indirectly. When compared to regular tea, the overall productivity of organic tea is lower. The global market's strong demand for organic tea helps growers get a good price for their goods. The production of organic tea differs from that of regular tea. The Singpho people use a traditional method to manufacture organic tea without utilizing contemporary techniques. People in the region appreciate their tea because of its unique smell, which is a result of their traditional method of manufacturing organic tea. Banaspati Tea Estate in Karbi Anglong District, Madoorie Tea Estate in Jorhat District, Rani Tea Estate

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under MKB (Asia) Pvt. Ltd in Rani, Kamrup District (Hajra, 2006), Jamuguri Tea Estate (444.85 ha.) and Hathikuli Tea Estate (474.57 ha.) in Golaghat District, Balijan Tea Estate (40 ha.) and Deha Tea Estate (271 ha.) in Jorhat District, and Bogamati Tea Estate (13 ha.) in Karbi Anglong District are some of the major tea estates in Assam growing organic tea. Asia's largest organic tea garden is located at Hathikuli Tea Estate.

2. Review of Literature

Narzary (2016) stated that with regard to the state economy in particular and the national economy in general, the tea industry holds a significant position in Assam. Assam continues to hold a prominent position in the global tea market and has retained its reputation internationally. According to the Assamese Economic Survey for 2013–2014, the tea sector in the state employs around 6.86 lakh people on a daily basis, accounting for roughly half of all hired laborers nationwide. According to the report, the state's average yield, output volume, and area under tea cultivation have all been rising. Many of the state's long-term unemployed workers have also found decent employment possibilities in the tea gardens.

Maity (2017) stated that by boosting output, lowering production costs, and raising tea estate revenue—all of which have an effect on profit—the inefficiencies of the tea estates can be diminished. The computed coefficients with negative values for requisites related to pesticide use, irrigation, and replanting indicate that the tea estates have a good chance of improving the current situation by implementing effective practices in these domains.

Jouzi (2017) mentioned that the main benefits of eating organic food are that it protects the environment and makes food more resilient to changes in the environment; it also increases farmers' revenue and lowers the cost of external inputs; it strengthens social capability; and it creates more job opportunities.

Biggs et.al (2018) mentioned that India's economy heavily depends on tea, with the state of Assam being the world's largest producer of black tea in the region. The researcher stated that Millions of people depend on the tea business for their livelihoods, but a number of socio-environmental issues are endangering the industry. The researcher finds complete insights (across the four main tea-growing regions of Assam) into livelihood outcomes that are recognized as crucial for constructing socio-environmental

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landscape sustainability and climate resilience, as well as local knowledge of climate change and valuable assets for sustaining livelihoods.

Mudoi and Dutta (2018) revealed that the consumption of organic foods, particularly organic tea, has changed as a result of the recent trend of an increasing urban population and consumers' concerns about nutrition, health, food quality, and the environment. The study analyses the market for organic tea since urban dwellers are more aware of their lifestyle and health. The majority of people work for both governmental and private organizations. The study area's consumers are well-equipped to pay premium rates for organic teas in order to maintain a healthy lifestyle.

Deka and Goswami (2019) stated a tiny number of tea growers in Assam, India, switched to producing tea organically after learning about the financial and environmental advantages of this kind of farming. However maintaining their business was seriously threatened by a lack of experience, market access, technological know-how, and suitable training. Some of these producers overcame the early challenges in the process of producing organic tea, despite the challenges. The current study makes use of a multi-site, mixed-method collective case study technique to comprehend and evaluate the growers' circumstances within the context of farm entrepreneurship. To get past the early challenges, the organic growers demonstrated entrepreneurial traits including creativity, risk-taking, and opportunity-seeking.

Paul and Mondal (2021) stated that In Assam, a large number of tea gardens are getting older, and their yield is decreasing. Over time, a great deal of the state's tea gardens have become sick because of poor infrastructure and the use of chemical pesticides and fertilizers during production. The usage of chemicals is weakening the soil's sustainability and potency. The only way to boost a tea garden's productivity—which was steadily declining as a result of using chemical farming methods—is to apply organic manure. Therefore, a tea garden that adopts organic farming is able to both boost the production of tea leaves from their garden and grab the quickly growing organic tea market due to customers' increased health consciousness.

Paul et.al (2021) analyzed the benefits and impact of Blockchain technology on the tea supply chain and its sustainable performance. The results demonstrate that the tea supply chain benefits significantly from the application of BCT; in particular,

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transparency and reliability are demonstrated to be sustainable performance indicators. The use of BCT is a progressive paradigm shift that motivates participants to alter their perspectives and advance their level of competence in the tea industry. This work adds to the small body of literature on the subject by being the first report on incorporating BCT into supply chains. Additionally, our conceptual framework might contribute to the creation of a worldwide tea industry supply chain that is more sustainable.

2.1 Statement of the problem

With Assam being the nation's top producer, organic tea farming in the state has enormous potential. However, there are still barriers standing in the way of the Assam tea industry for growing organic tea. As far as we can tell, there isn't much literature on the suggested study. There is hardly any research done on the potential economic benefits of growing organic tea in the state of Assam and fewer studies have been done regarding consumer awareness about organic tea farming in Assam.

Hathikuli Tea Estate is one of the top organic tea gardens and it is known for its sustainable tea farming in the region. In this tea estate sustainability plays an important role, the production process of tea is done without the use of any fertilizers and pesticides. The farming practices are overall based on organic manure, which is beneficial for the health of human beings. Therefore, a study on sustainable tea farming practices could help in getting useful insights regarding Assam's organic tea sector.

2.2 Research Questions

Based on the previously reviewed literature, the following research issues are discovered:

Q: What is the present scenario of Hathikuli organic tea farming?

Q: What are the techniques used by Hathikuli tea estates in the production of organic tea?

Q: What are the marketing strategies adopted by Hathikuli Tea Estates in promoting organic tea?

Q: Is there any government as well as institutional support especially for the promotion and development of organic tea in the study area?

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3.1 Objective of the study

The present study has been undertaken with the following objectives:

- To provide an overview of Hathikuli Tea Estate, India's largest organic farm.
- To examine the existing scenario of tea farming practices adopted by Hathikuli tea estates.
- To analyze the market scenario of the study area.

3.2 Methodology

The present study adopts a case study approach where the researcher acted as a close participant observer over the organic tea cultivation practices in Hathikuli Tea Estate located in Kaziranga, Assam. Personal interactions were also done with the authorities as well as the staff of the organization to obtain relevant information and to understand different aspects of the production process during the field visit.

3.3 Limitations of the Study

The area of the study is limited to only the Hathikuli tea estate. The reliability of primary data is based on the responses of the respondents.

4. Hathikuli Tea Garden and Estate

Tea farms conjure visions of verdant plantation regions in the distant Northeast or South India, where industrious women in long lines gather leaves, bundle them into baskets, and carry them to their destinations. Few people genuinely take into account the fact that the majority of plantations were created by clearing land from forests or forest corridors. This is because, as time goes on, these areas support less and less biodiversity due to the pesticides that are "carpet bombed" into the plants, allowing only a dense monoculture of tea bushes to survive.

The Golaghat District of Assam is home to the Hathikuli Tea Estate (26°35'0.50"N, 93°21'12.40"E, height 88 m). Its 4.80 square kilometers are divided into three sections, namely: Hathikuli, Rangajan, and Deering. The plantation is approximately 12 km along National Highway 37, a rather narrow strip of land. The tea estate started its journey in the year 1902 The word "Hathikuli" comes from the Assamese words "hati" (elephant) and "kuli" (frequent), denoting a location that is frequented by elephants.

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The estate was always distinctive and brought many tourists to Kaziranga. The Hathikuli administration was happy to receive these visitors and promoted "tea tourism" to their factory and estate, which they were rightfully proud of. They have even more to be happy about now, in our opinion, as the Hathikuli Tea Estate has grown to be the biggest organic plantation in Asia. It is owned by the Tata Group of Companies and they are allowed to retail their tea dust and other goods made out of tea sold in the retail out by the side of the National Highway 37. The garden can yield ten lakh kilograms of organic black CTC, green, and Orthodox tea. Rather than using hazardous pesticides, they let nature generate its own predators of pests, and they employ vermicompost in place of chemical fertilizers. A production method that avoids the use of artificial fertilizers and pesticides is organic farming. To maintain soil productivity, an organic farming system relies on crop rotation residues, green manures, legumes, animal manures, off-farm organic wastes, and some biological pest control techniques. The only tea that is actively produced using environmentally friendly methods and has received certification from an authorized certifying body is considered organic.



Fig. 3.1: Hathikuli Tea Estates

Source: TG Contributer

In the year 2011, Hathikuli Tea Estate received its organic certification. Hathikuli Tea Estate was converted into an organic tea garden in order to provide an eco-friendly workplace, capture the premium market for organic tea, and protect the environment.

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Fig. 3.2: Geographical location of the Hathikuli Tea Estates

Source: Google Map

Additional products

The tea garden also produces along with tea, substantial quality black pepper. The black pepper is grown as an auxiliary multiple crops in the plantation field. The black pepper was also retained in the outside retail organic shop.

For the purpose of the organic plantation, the black pepper creeper is allowed to grow in a tall, big tree locally known as siris tree. Once creepers are exhausted, the siris trees are used as fuel in the garden, off, and outside. From this firewood, the garden also generates some revenue. In this process, multiple cropping practices are adopted in the shape of the production of organic farm products.

Marketing and Sale

From historical evidence of tea marketing, we have gathered that tea is an excisable commodity, now of course GST, which is levied traditionally at the factory premises under an e-way bill. Without payment of tax at the factory gate premises, tea is not allowed to be brought out.

In the past, tea has not been allowed for marketing and is not permitted on the estate during the annual field inspection. However, it was reported to TATA in 2022 and 2023 that this tea estate has been given permission to inspect all small retail establishments as well as the garden's premises. In addition, the Ganden authority produces an organic herbal product.

Hathikuli Tea estate beside organic tea, there is a retail outlet near the gate of the tea garden. Other than tea, organic products

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such as bathing soap, detergent powder, incense sticks, and several other products, are also sold which entail higher prices. During the period of our research inquiry, it was observed that both domestic as well as foreign tourists prefer to buy this organic product on an experimental basis from the retail outlet.

In response to market and customer demand, the company APPL opened three retail locations in Hathikuli, Powai, and Guwahati. It sells and markets the Hathikuli brand through large retailers including Spencers and Metro Cash & Carry as well as online at infibeam.com. Additionally, it intends to substantially simplify retail management processes. On average, the Hathikuli division retail outlet sells 144 packets of traditional tea (100 gm each) and around 30 kg of CTC every week.

Different types of organic tea produced by Hathikuli Tea Estates



1. Hathikuli Organic Tea



2. Hathikuli Organic Green Tea



3. Hathikuli Ginger Organic Tea



4. Hathikuli Organic Leaf Tea

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Certification achieved by Hathikuli tea estates

Hathikuli is an organic tea garden that has been certified by the Rain Forest Alliance, ISO 22000, SA 8000, ETP, JAS, Indian, US (USDA), and European Union organic agricultural standards (Figure 2). And Sanctuary Asia's "Wind under the Wing," which placed first in the Family Welfare Award in 2006, and second in the ABITA Family Welfare Award in 2009, 2012, and 2013. For preserving biodiversity, it was most recently recognized at the Sanctuary Asia Wildlife Awards in Mumbai.

5. Findings

The outcome of the observation is narrated here under:

- For the purpose of plantation of younger tea plants. The old plants have been removed and new plants were planted in the hole dug on the soil in the garden.
- The soil has to be prepared to make it fit for absorbing organic plants.
- The garden authorities have erected a field of water bodies inside the garden where decomposing, cow dunk is accumulated.
- Over the cow dunk some insects and lukewarm were cultivated in the ground. Once it matured, the organic manure component along with lukewarm is shifted and placed under its plant in the garden. The lukewarm and the manure supplied is purely organic, which is the main component of organic tea plantations. Authorities do not get an adequate supply of organic decomposed manure of their own which is needed to cover the large number of plants over long hectares of plantation. As a result, the garden authorities give an allotment of cultivating, decomposed lukewarm in the domestic premises of the villagers. Once the decomposed manure is ready for application and use, the garden authorities buy this from the local villagers. The villagers therefore find an income by selling organic manure to the garden.
- The garden authorities once combine new soil with new plants and the decomposed manure they wait for a gestation period of six to seven years.
- Once a gestation period is over the plant starts yielding crops, technically known as 'two leaves and a bud" which

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yields the best crops and the best price for the organic products in the market.

- Hathikuli tea estate has generated job opportunities for different types of applicants.
- Hathikuli Tea Estates organic conversion was initiated in 2007 and concluded in March 2011. It is Asia's largest Certified Organic integrated farm.
- Compared to inorganic farming, organic farming requires more effort since all of the manure, pesticides, and vermin compost are made with extra care.
- The organic approach to growing tea is a green technique that protects the environment from air and water pollution while maintaining the soil's fertility.

6. Suggestions

- Since organic tea farming preserves the ecology and the quality and fertility of the land, it should be encouraged.
- Small tea growers should be encouraged to switch to organic tea planting by the concerned institutions of the tea industry organizing awareness workshops in local areas.
- The government should facilitate the promotion of organic tea produced by the Hathikuli Tea estates
- To take advantage of the market potential jointly, they must make a concerted effort regarding organic tea of the estates.
- To draw clients from both domestic and foreign markets, attractive packaging and good hygiene are essential.

7. Conclusion

India, the world's second-largest producer of black tea, has fewer organic tea gardens than any other country, despite the enormous global market potential for organic tea. The Tea Board of India, the Governing Body of the Tea Industry, is sincerely working to promote the production of organic tea by providing financial incentives to offset the costs associated with switching from conventional to organic gardening practices. The paper attempted to study the organic farming practices adopted by the tea industry of Assam, especially the Hathikuli tea estates. The Hathikuli Tea Estates is known for its organic tea garden and it is Asia's largest organic tea garden. It started its journey in the year 1902 and it was converted into a sustainable organic tea

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garden with the goal of providing a healthy, eco-friendly work environment in addition to catering to the premium organic tea market. During the transition, Hathikuli Tea Estate faced numerous difficulties, including an abrupt loss in crop yield, increased labor expenses due to the requirement to maintain organic field input, hefty yearly registration fees for the organic certificate, and high production costs. In order to stay ahead of the curve, Hathikuli Tea Estate, however, has developed a successful and lucrative business model by offering a variety of product lines, streamlining the tea supply chain, and creating a tea boutique. It provides an eco-friendly environment through sustainable practices in farming and provides a platform for the organic market. The industry of growing and producing tea is being revolutionized by Hathikuli Tea Estate. This tea plantation serves as a model for other traditional tea gardens, demonstrating the advantages of organic change for the environment and the tea estate itself.

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