

**Evaluating Profitability and Livelihood Empowerment and Sustainability in
Shadow Entrepreneurship: A Case of Street Vending in Dharan
Sub-Metropolitan City of Eastern Nepal**

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Abstract

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Street vending is emerging as a significant shadow entrepreneurial activity, impacting a substantial portion of the urban population. This study, centered in Dharan City, Eastern Nepal, investigates the profitability of street vending and its impact on empowering and sustaining lives and livelihoods. Through structured interviews with 50 purposively selected street vendors, the research identifies key determinants of profitability, such as education, investment, marital status, livestock ownership, and consumption patterns. Findings suggested that married vendors, those with livestock and residential property, and those prudent in educational spending tend to achieve higher profits. Conversely, individuals with low capital investment, from rural areas, and maintaining moderate consumption may experience adverse effects on profitability. The findings also underscored the crucial role of street vending in individual survival, livelihood empowerment, social inclusion, and sustainability. The findings provide valuable insights for local-level policymakers struggling to harness the complexities of growing urban economies by regulating and managing street vendors' activities across Nepal.

Keywords: urban economy, shadow entrepreneurship, profitability, livelihood, sustainability, consumption

JEL classification: L26, O17

Introduction

Economic activities encompass all factors like land, labor, capital, and entrepreneurship to serve the people who make profits, ultimately sustaining and empowering the lives of those involved in economic endeavors. Small businesses including street vending, and shadow entrepreneurship, play a crucial role in employing the less literate or non-literate and poor, providing economic opportunities to sustain their lives (Maneepong & Walsh, 2013; Roper, 2012). Ayyagari et al. (2003) conducted a global study revealing that irrespective of a country's income level, 47-58% of employment comes from firms with fewer than 100 employees, highlighting the significance of small and medium enterprises (SMEs) in employment creation. In many developing as well as urbanized regions, street vending, the shadow entrepreneurship have grown into a surviving economic activity, often proxying a crucial avenue for marginalized populations to earn a livelihood (Kabeer, 2005; Williams & Gurtoo, 2016).

Cross (2000) indicated that shadow entrepreneurship includes those sole undertakings that engage in the exchange of fine goods and services without the encircle with a legal framework, illegally inhabit in front of corporate sites, fail to file tax returns, operate without binding employment contracts, and lack official contracts with suppliers and clients. Street vending is a prominent feature of urban landscapes in developing countries (Graaff & Ha, 2015). Street vending has often appeared as an impulse to urbanization, inward migration, unemployment, and the desire for reasonable goods and services (Hart, 1973). The widespread street vending in Dharan Sub-Metropolitan City has become an integrated part of the local economy, offering essential goods and services to residents and visitors alike though it has few shedbacks on pedestrians, security, and transportation.

The reason behind this may be more profitability in street vending which causes the fertilizer tremendous development of such type of shadow entrepreneurship. Street vending is a multifaceted dimension of the local economy that encompasses not only financial gains but also the ability to generate sustainable income (Asiedu & Agyei-Mensah, 2008). Street vendors in Dharan City, like their counterparts in other cities,

often face several challenges related to fluctuating incomes, seasonality of engagement, limited access to resources, hard to dependability, life sustainability, and empowerment (Adhikari, 2017; Bhattarai & Pathak, 2020). Exploring how street vendors in Dharan City can assure profitability and sustain their enterprises as well as how they manage the trade-off of surviving and empowering is crucial for understanding the diverse facets of shadow entrepreneurship in this specific context.

Empowerment is a key outcome associated with entrepreneurship (Kibler et al., 2015). For street vending entrepreneurs, empowerment may manifest in various forms, including economic independence, increased decision-making autonomy, and improved social status (Elson, 1999; Kibler et al., 2015). Investigating how entrepreneurship empowers street vendors in Dharan City can shed light on this economic activity's transformative potential in marginalized individuals' lives.

This research intends to bridge the gap in the literature by exploring determinants of shadow entrepreneurial profitability and its contribution to the empowerment of lives or live sustainability in Dharan Sub-Metropolitan City in different contexts as studied by several researchers. This study seeks to subsidize the growing body of knowledge on shadow entrepreneurship and urban livelihoods in Nepal by conducting an empirical study. Thus, structured interviews were conducted, and ordinary least squares (OLS) were employed to determine the profitability of street vending. Additionally, descriptive analysis was utilized to assess its contribution to empowering lives and their sustainability. Besides the introduction, this article is divided into a literature review, methods and materials, results and discussion, and a conclusion.

Literature Review

Street Vending: A Shadow Entrepreneurship

Shadow or an informal sector performing all legitimate economic actions and activities that fail to follow the formally established rules and regulations (Feige, 1990). The state does not legally regulate its economic activities in a social context while other similar activities are overseen and regulated (Castells & Portes, 1989). de Soto (1989)

argued that informal economic activities emerge due to barriers to entry and the complexity of formal regulations. Thus, Cross (2000) stated that shadow street vending, characterized by its temporary nature, involves the provision of legal goods and services in public spaces, particularly in rural areas however, it operates without formal registration and regulation.

Street vending is a form of shadow entrepreneurship mainly operating in urban areas. Street vending takes on various forms, whether conducted full-time, part-time, seasonally, or occasionally. Additionally, it serves different purposes, ranging from a survival tactic—a final attempt to secure a basic income—to a mode of small-scale entrepreneurship or a strategy employed by larger businesses to expand their market presence and boost turnover (Bromley, 2000).

Street vending, prevalent globally and particularly in developing nations, serves as a vital income source for urban unemployment and provides affordable goods and services to city residents, facing challenges like insecure property rights, harassment, and subsistence struggles, yet persisting and expanding despite these difficulties (Wongtada, 2014). Street vendors play a crucial role in delivering essential services to the urban populace, particularly those with limited financial resources (Bhowmik, 2005). The factors such as capital, workforce size, and educational attainment among street vendors significantly influenced their profitability (Adhikari, 2017). Street vending embodies freedom, empowering vendors to utilize their resources and exercise autonomy in shaping their lives outside conventional structures that have previously failed them (Giraldo et al., 2020).

Street Vending Profitability

Profit is the surplus income over the costs of operation of any undertakings. It is the executive rewards for managing undertakings (Marshall, 1895), the reward of taking and bearing risks (Hawley, 1893), the reward for bearing uncertainty (Knight, 1921), the reward for innovation (Schumpeter, 1934), the rent of exceptional abilities that an entrepreneur may possess (Walker, 1887), dynamic entrepreneurship (Clark, 1899), and many others. Street vending, a piece of the urban shadow economy of a developing economy, constitutes an informal form of entrepreneurship. The profitability of street

vending depends on the level of education, labor supply, and investment (Adhikari, 2011). Street vending is dominant in rural areas; and it guarantees the income for rising poverty and the marginal section of the global population (Recchi, 2021).

Bhattarai and Pathak (2020) studied the income and poverty implications of street vending in Nepal; and they found that street vending profitability and income depend on the level of education, sales, experience, and working hours. Moreover, Iqbal et al. (2022) reported concerning twin cities of Pakistan that street business profitability depends on location, vending items, the income of residents of the vending area, age of vendors, business background, ideas, experience, vendors' income, loan and financial inclusion, and bank account status of vendors; vendors of food, fruits, vegetables, and garments categories have more profitability opportunities. Street business was the source of income for women, and it was higher than men's only street business (Tinker & Cohen, 1985). Educational level is crucial to informal vending profitability (Martínez et al., 2018; Peimani & Kamalipour, 2022). Profitability of street vending is retarded due to low bargaining power and low competitiveness with formal sectors (Navarrete-Hernández et al., 2023).

Street Vending for Empowering Livelihood

Bromley (2000) stated that street vending encompasses a range of activities, spanning from a means of survival characterized by a desperate pursuit of a basic income, to small-scale capitalism, or the expansion of large corporations diversifying to stimulate demand and increase overall turnover. Street vending is a lucrative venture that can function both as a primary means of earning a livelihood and as a source of employment creation (Dipeolu et al., 2010). However, Truong (2018) found that some street vendors improve their living conditions and some others have no sufficient income to enhance living conditions. The informal sector is integral to the economies of developing nations, playing a key role in providing substantial employment and sustaining the livelihoods of the urban poor (Lorato et al., 2023). Moreover, Lorato et al. (2023) further explored using econometric methods that individuals engaged in informal businesses experience enhanced livelihood improvements when they achieve

higher monthly income, engage in income-saving practices, stay longer in the business, have access to credit, possess more working capital and participate in training opportunities. Furthermore, Giraldo et al. (2020) highlighted the diverse benefits that vendors offer, enhancing both overall well-being and happiness. These positive effects extend from vendors to families, communities, and society at large.

The most noticeable facet of the unofficial economy is street vending, where thousands of people make a living by setting up shop on sidewalks, streets, and other public areas (Shrestha, 2013). An empirical study by Timalsina (2012) showed that in contrast to the agricultural labor of the past, street vendors now possess enhanced financial and human resources, affording them improved access to both physical and political capital compared to earlier times. In line with these findings, Khawas (2022) reported that engaging in street vending or trade is among the various livelihood approaches embraced within a city's informal economy. Additionally, the study also concluded that street vending holds significance as a key element of a city's informal economic landscape, serving as a primary means of livelihood for a considerable segment of the urban poor. Moreover, for numerous families, street vending functions as the primary or supplementary source of income, catering to their essential livelihood requirements.

Figure 1

Map of the Study Area



Methods and Materials

Study Area and Sampling

The purpose of this study is to examine the profitability of street vending and determine the impact it has on empowering and sustaining livelihoods. The street vending market is rapidly expanding with Dharan city not an exception. Consequently, the current study mainly concentrated on Darhan City as the research field area (see Figure 1). Dharan is a picturesque city in the east of Nepal and is located in the Sunsari district of the Kosi province which is about 380 kilometers from Kathmandu, the capital of Nepal. It has its pillars, such as evergreen cultural and socio-ethnic diversity, a breaking ice phase among its society members, and a thriving fashion scene.

Street vending is characterized by its footloose nature. Out of the 34,101 street businesses in the Koshi area, 5,695 of them are located in Dharan, representing 16.7% of the total (National Planning Commission [NPC], 2021). In the Koshi region, individuals involved in street businesses account for 1.8% of the total number of establishments (NPC, 2021). Street vending, a shadow entrepreneurship, is not registered with any government body, and it operates informally, in a footloose manner. As a result, exact numbers cannot be identified. To fulfill the study's purpose, the sample size is determined using the technique outlined by Cochran (1977). For the sample size (n), the sample proportion (p) is assumed to be 0.05, with $q = 1-p = 0.05$, and a desired precision level of 10%. Because of informality and regulatory challenges, vendors' response accuracy level may be low, hence we desired a 10% error of margin as sampling error under the study. Israel (1992) however also provides a table for estimating the sample size at a 10% level of precision.

$$n = \frac{Z^2 pq}{e^2} = \frac{(1.645)^2 (0.5) (0.5)}{(0.1)^2} = 67.65 \sim 68$$

The targeted respondents were selected as per the purpose of the study from the cluster of street vendors. The purposive non-random sampling was used. However, more than 18 respondents were excluded from the study because they were unable to provide sufficient information about their businesses and were insincere to respond. Due to data saturation, limited or saturated levels of samples were considered. As a result,

the study focused on only 50 respondents. Specifically, street vendors who do not pay any levy for operating their businesses formally were purposively selected for inclusion in the study. A structured questionnaire or interview survey in Google Forms was prepared for data collection. The questionnaire was recorded by the researchers to collect systematic information from the respondents.

Data Handling and Data Analysis

The questionnaire was prepared in Google Forms in the English language. The data were primarily collected and recorded in Google Forms by the first and third authors. The fourth author helped to collect information later on. The data covered the core city area of the Dharan sub-metropolitan city, excluding ward numbers 4, 5, 6, and 20. The street vendors under this study were covered mostly *panipuri* (fried puff-pastry balls with sour watery) vendors, *chatpate* (made with puffed rice) vendors, street foods vendors, drinking water sellers, mask sellers, and cloth shopkeepers. The interviews of these vendors took a minimum of 35 to 50 minutes without interrupting their operation. All the information was recorded in Google Forms directly by the first and third authors. The data was organized in Excel and then results were derived from STATA 15.1 software. Finally, ChatGPT 3.5 was used for grammatical improvements and suggestions to improve the sentences.

Model Specification

This study is aimed to examine the profitability of street vending entrepreneurship and its contribution to empowering livelihood. To accomplish this purpose, the OLS method with different dummy independent variables was employed. The estimated profitability model is as follows:

daily profit = f (no formal education, few capital investments, marital status, livestock, educational expenses, minimum consumption, residential status, rural-urban origin, experience, etc.)

Thus, the model is estimated as:

$$\text{daily profit} = \alpha + \beta_1 \text{education_no} + \beta_2 \text{investment_less 10K} + \beta_3 \text{married} + \beta_4 \text{livestock_yes} + \beta_5 \text{education_exp} + \beta_6 \text{consumption_150K-300K} + \beta_7 \text{house_own} + \beta_8 \text{origin_rural} + \beta_9 \text{experience} + \varepsilon_t$$

On the other hand, empowering lives sustainability is evaluated in tabular form with percentages and charts including the contribution by street vending on their life improvements such as contribution on the standard of living, education, health, satisfaction, loan repayment, help in survival, balance diet, minimum consumption, etc.

Results and Discussion

Attributes and Description of Respondents

Street vending is gradually prolonged a significant part of the informal economy, particularly within the urban areas of developing economies. The survey participants were comprised of street vendors, and their respective attributes and characteristics are detailed in Table 1. The analysis revealed that a substantial proportion of the vendors are male (62%) and fall within the age range of 41 to 65 years (60%). The distribution of vendors among the Madheshi (36%), Mangol (30%), and Aryan (34%) groups was relatively inclusive, with Madheshi vendors predominating the street vending landscape. A majority of respondents possessed either limited experience, with up to 5 years in street vending (26%), or a moderate level of experience, ranging from 20 to 30 years (26%). The data in Table 1 also demonstrates that a significant percentage of vendors were either more educated (38%) or had not received formal education (34%), both of whom were actively involved in street vending.

Furthermore, Table 1 provides insights into the marital status, urban origin, and housing situation of the respondents, indicating that most were married (82%), originated from urban areas (56%), and resided in homes with tin roofs (58%). Additionally, the majority of respondents owned their residences (88%), with a high percentage lacking farmland (92%) and livestock (78%). The majority of vendors invested between NRS 10,000 and 50,000 (66%) in their street vending businesses. The decision to engage in street vending was primarily influenced by the challenges of finding employment in other sectors (50%) and the desire for self-employment (34%) as street vendor entrepreneurs. Motivation stemmed from the minimal skill requirements (38%) and limited capital investment (18%), as well as various other motivating factors (28%).

Table 1*Respondents' and Variable Attributes*

Description	Categories	Frequency	Percentage
Study area	Dharan 1 to 20 Ward other than 4,5,6,20		
Sample size		50	100
Sex (female = 1, male = 0)	Female	19	38
	Male	31	62
Age (youth = 1, elder = 2)	Youth: 16 to 40	20	40
	Elder: 41 to 65	30	60
Caste/ Ethnic composition (Madheshi =1, Mangol = 2, Aryan = 3)	Madheshi	18	36
	Mangol	15	30
	Aryan	17	34
Experience (< 5 years =1, 5-10 years = 2, 10-20 years = 3, 20-30 years = 4, > 30 years = 5)	< 5 years	13	26
	5-10 years	8	16
	10-20 years	11	22
	20-30 years	13	26
	> 30 + years	5	10
Education of respondents (secondary and above = 0, primary = 1, no formal = 2)	Secondary and above	19	38
	Primary education	14	28
	No formal education	17	34
Marital Status (single = 0, married = 1)	Married	41	82
	Single (including one divorced and one widowed)	9	18
Origin of respondents (urban = 0, rural = 1)	Urban	28	56
	Rural	22	44
House ownership status (otherwise = 0, own house = 1)	Own house	44	88
	Otherwise (Rent and relative)	6	12
House type	No house	4	8

Description	Categories	Frequency	Percentage
(no house = 0, cemented house = 1, house with tin roof = 2)	Cemented house	17	34
	House with a tin roof	29	58
Own farmland (no = 0, yes = 1)	Yes	4	8
Livestock (no = 0, yes = 1)	Yes	11	22
Capital investment in Street Vending (< 10 thousand = 0, 10 to 20 thousand = 1, 20 to 50 thousand = 2, 50 thousand to 1 lakh = 3, > 1 lakh = 4)	< 10 thousand	8	16
	10 to 20 thousand	18	36
	20 to 50 thousand	15	30
	50 thousand to 1 lakh	4	8
	> 1 lakh	5	10
Reasons for choosing vending (self-employed as a street vendor = 1, difficult to find employment in other sectors = 2, lack of education and skills for other job = 3, lack of agricultural land = 4, lack of investment in other businesses = 5)	Self-employed as a street vendor	17	34
	Difficult to find employment in other sectors	25	50
	Lack of education and skills for other job	6	12
	Lack of agricultural land	1	2
	Lack of investment in other businesses	1	2
The motivation for Street Vending (footloose in nature = 1, few capital investments = 2, few skills = 3, high earning with low investment = 4, other = 5)	Footloose in nature	4	8
	Few capital investments	9	18
	Few skills	19	38
	High earning with low investment	4	8
	Other	14	28

Note. Field Survey 2023 by Authors

Profitability of Street Vending Entrepreneurs

The profitability of entrepreneurship depends on the entrepreneurial capacity and skills of individuals. Table 2 presents the Ordinary Least Squares (OLS) results for the profitability of street vending entrepreneurs. These OLS estimates were well-fitted, as indicated by the presence of significant F-statistics. Furthermore, both the R^2 and adjusted R^2 values confirmed that variations in profitability were highly explained by its determinants. These findings underscore the importance of entrepreneurial abilities and competencies in shaping the success of street vending ventures.

Table 2

Profitability of Street Vending (OLS Results)

Daily profit	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Level of education (no formal education = 1, otherwise = 0)	-404.899	251.0279	-1.61	0.115	-912.2453	102.4472
Few capital investment (<NRS10,000 = 1, otherwise = 0)	-903.368	326.3628	-2.77	0.009	-1562.972	243.7641
Marital status (married = 1, single = 0)	960.119	316.8173	3.03	0.004	319.8073	1600.431
Livestock (yes = 1, no = 0)	956.157	309.1159	3.09	0.004	331.4104	1580.904
Education expenses	0.0949	0.0285552	3.32	0.002	0.0372064	0.1526304
Consumption (daily NRS 150 to 300 = 1, otherwise = 0)	-2260.537	665.5364	-3.40	0.002	-3605.636	915.4376
Residential status (own house = 1, otherwise = 0)	622.333	355.992	1.75	0.088	-97.15371	1341.82
Origin of vendors (rural = 1, urban = 0)	-580.073	236.8863	-2.45	0.019	-1058.838	101.3082

Experience	-33.1885	11.60576	-2.86	0.007	-	56.64458	9.732351
Constant	1192.387	409.3756	2.91	0.006		365.008	2019.766
Source	SS	df	MS	Number of obs = 50			
Model	458088	9	508987	F (9, 49)	= 8.28		
	63.9		3.77	Prob > F	= 0.0000		
Residual	245765	40	614413.	R-squared	= 0.6508		
	55.7		894	Adj R-squared	=		
Total	703854	49	143643	0.5723			
	19.7		7.14	Root MSE	=		
				783.85			

Note. Field Survey 2023 by Authors

In the context of street vending profitability, the level of education did not appear to be a significant influencing factor, contrasting with previous studies that showed the significant effect of education on the profitability of street vending and less educated entrepreneurs earn less (Hamilton, 2000; Martínez et al., 2018). Street vending is a shadow entrepreneurship and does not need more educational knowledge. Similarly, location, customer relations and communication skills, sanitation, product, price, quality, indigenous skills, etc. are more crucial factors than education. However, profitability was positively influenced by marital status indicating married vendors have a positive impact on profitability than single street vendors which is in contrast with a previous study that showed that married respondents earn less than unmarried (Adhikari, 2017). Indeed, the observed influence of married individuals on street vending profitability may be attributed to shared responsibilities, financial support, mature and future-oriented, family burden, achieving decent livelihood, emotional support, complementary skills, broader social networks, stability, cultural factors, or individual circumstances.

Profitability was also positively associated with those who had livestock and with education expenses. Moreover, owning a house or residential status was linked to increased profitability. A family member of the vendor engaged in livestock can support

the family's sustainability. Therefore, the vendor will be more confident and focused than someone who does not have livestock in the business, which can lead to greater earnings potential. Similarly, vendors who invest more in education expenses may be sincere in operating their businesses and more honest and responsible in managing the burden of educational costs, ultimately ensuring higher profitability. Furthermore, vendors who own a house can save rental expenses, which are major contributors to higher profits.

Conversely, few capital investments (less than NRS 10,000) were associated with decreased profitability, as were daily consumption expenses within the range of NRS 150 to 300. It is evident that a few capital investment amounts result in limited diversification and fewer opportunities to achieve greater returns. Conversely, if vendors endeavor to maintain a minimum standard level of daily household consumption expenses, it may lead to a reduction in profits to some extent. Likewise, rural origin than urban has an inverse effect on the profitability of street vending. Rural-origin vendors in urban street vending businesses may experience reduced profitability due to factors such as limited knowledge of the urban market, increased competition, higher urban rental costs, cultural differences, and the challenges of adapting to the urban infrastructure and social network. Similarly, the experience of vendors has negative impacts on street vending profitability, contrasting with previous studies (Tsai & Yang, 2018). Experience isn't always the key to profitability in street vending; newcomers with customer motivation and persuasion skills can be profitable, but experienced vendors may face issues like complacency, resistance to change, and increased competition.

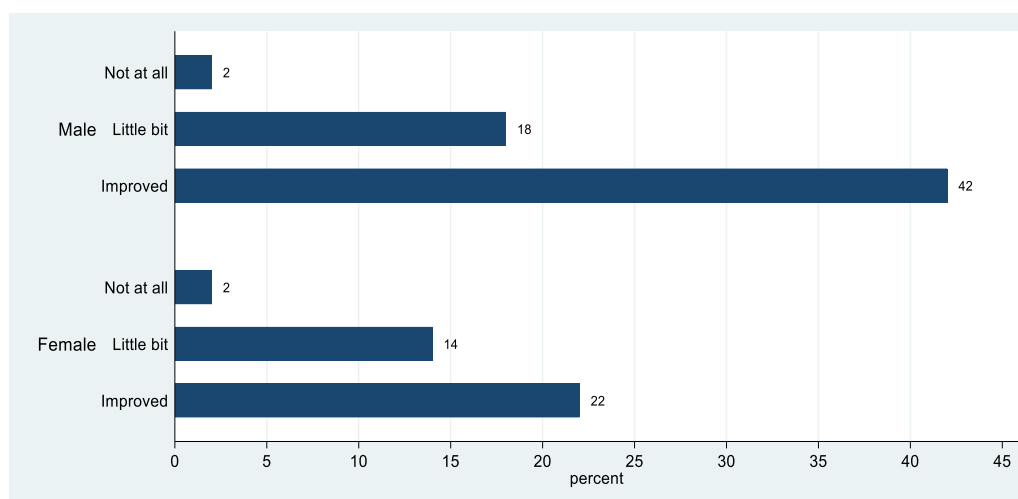
Empowering and Sustaining Lives Through Street Vending

Street vending is a more profitable business without any heavy investment and cost to operate. So, it can help empower and sustain lives. Most of the males and females believed that street vending may improve their livelihood from street vending as presented in Figure 2. It supports the findings of previous studies (Allison et al., 2021; Timalsina, 2007). According to the results, the livelihood of 42% of males and 22% of females was improved. The rest of the others also confirmed that street vending

may improve their livelihood a little bit and only nominal respondents' livelihoods were not improved by street vending. Thus, street vending, characterized by its informal and footloose nature, requires minimal capital and skills, yet can provide a satisfactory income, ultimately enhancing the livelihood of vendors. The majority of respondents believed that it has the potential to enhance various aspects of life, including sustainability, survival, children's education, health and nutrition maintenance, socio-economic well-being, empowerment, financial freedom, and self-employment opportunities.

Figure 2

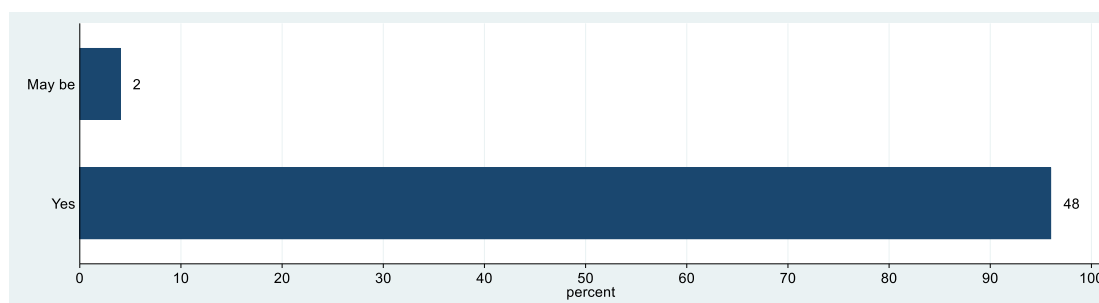
The Perception of Respondents Regarding the Contribution of Street Vending to Livelihood



Moreover, Figure 3 reveals that almost all respondents agreed that street vending was crucial to survival 96 % of respondents believed that street vending was helpful for the survival of their lives. Only 4 % did not fully agree but responded it may be helpful to survival. The results support the previous studies (Estrada & Hondagneu-Sotelo, 2010; Mengistu & Jibat, 2015). Street vending, through its provision of income and self-employment opportunities, particularly benefits those with limited resources or formal employment options, contributing to economic sustainability, daily survival, and improved livelihoods among vendors who may not have access to regular income sources.

Figure 3

The Perception of Respondents Regarding the Contribution of Street Vending to Survival



The dimensions related to economic sustainability, employment, future precautions, education, health, inclusiveness, and indebtedness in livelihood empowerment are presented in Table 3. The results reveal that street vending may be inevitable for the economic sustainability of the respondents. The daily disposable income of the vendors was not less than NRS 150, and 54% of vendors had income between NRS 1001 – 3000 per day. The results also show that 50% of vendors had 1 to 2 family dependencies, and 36% had 3-4 family member dependencies. Similarly, 50% of vendors had 5 or more family members, and 30% had 4 members. Moreover, 86% had no other sources of income, 92% had no farmland of their own, and 78% had no livestock. Likewise, only 42% had employed family members in their street vending, and 58% of vendors had houses with tin roofs. This scenario reveals that street vending is crucial for economic well-being and sustainability.

Table 3

Major Dimensions of Livelihood Empowerment and Sustainability

Dimensions	Percent	Number	Dimensions	Percent	Number
Economic sustainability and dependency			Employment Opportunity		
<i>Daily disposable income (Sales – Expenses)</i>			<i>Employed family member</i>		
< NRS 150 (<\$1.25)	0	0	Yes	32	16
NRS 151-1000	24	12	No	68	34

NRS 1001-3000	54	27	Precaution for future betterment		
NRS 1001-3000	20	10	<i>Monthly saving</i>		
> NRS 5001	2	1	No saving	12	6
<i>Family dependency</i>			Less than Rs. 1000	8	4
No dependency	4	2	NRS 1000 -2000	14	7
1-2 family members	50	25	NRS 2000 to 5000	20	10
3-4 family members	36	18	NRS 5000-20000	26	13
More than 4 family members	10	5	More than 20000	20	10
<i>Size of family member</i>			Educational attainment		
2	4	2	<i>Support to education</i>		
3	16	8	Yes	100	39
4	30	15	No	0	0
5 and more	50	25	<i>Type of school</i>		
<i>Other sources of income</i>			Institutional (private)	42.50	17
Yes	14	7	Government	57.50	23
No	86	43	<i>Monthly educational expenses</i>		
<i>Own farmland</i>			No expenses	16	8
Yes	8	4	< NRS 2000	30	15
No	92	46	NRS 2001-5000	26	13
<i>Livestock</i>			NRS 5001-10000	22	11
Yes	22	11	> NRS 10001	6	3
No	78	39	Health Status		
<i>Employability of family member</i>			<i>Monthly health expenditure</i>		
Yes	42	21	< NRS 1500	40	20
No	58	29	NRS 1501-3000	36	18
<i>Housing status</i>			NRS 3001-5000	20	10
No	8	4	> NRS 5001	4	2

House with a tin roof	58	29	<i>Diet ratings</i>		
Cemented house	34	17	Poor and fair	0	0
Inclusiveness		22	Good	11	11
<i>Caste/ethnic inclusion</i>			Best	78	39
Madheshi	36	18	<i>Birth status before business</i>		
Mangol	30	15	Health assistance	66.67	26
Aryan	34	17	Home	33.33	13
<i>Gender inclusion</i>			<i>Birth status after business</i>		
Male	62	31	Health assistance	91.67	22
Female	38	19	Home	8.33	2
<i>Indebtedness Status</i>			<i>Daily consumption expenses</i>		
<i>Loan for business</i>			NRS 150-300	4	2
Yes	54	27	NRS 301-500	32	16
No	46	23	> NRS 501	64	32
<i>Help to repay the loan</i>					
Yes	100	28			
No	0	0			

Note. 1 US\$ = NRS 120.54 (based on 2022 average exchange rate), NRS = Nepali Rupees. Data from Field Survey 2023 by Authors.

In the study area, the results revealed significant levels of caste/ethnic and gender inclusion in street vending, with participation from 36% of Madheshi, 30% of Mangol, and 34% of Aryan individuals, and a gender distribution of 38% female and 62% male vendors. Additionally, street vending serves as an effective means for debt servicing, with 54% of vendors having initially established their businesses with loans that they could repay. Moreover, 32% of vendors created employment opportunities for family members, and a substantial 26% could save NRS 5000-20000 for future financial well-being, with 20% saving more than NRS 20000 each month. Only 12% of vendors were unable to save any of their income.

Street vending also contributes to the educational attainment of family members; as all respondents whose family members receive educational support from street

vendors report an improvement in educational attainment. Furthermore, 42.50% of children in this study area attended private schools or institutions. The majority of vendors (30%) spent less than NRS 2000 on education, while 6% could afford to spend more than NRS 10,001 on education. The results also indicate that 40% of vendors could spend less than NRS 1500 monthly on health services, while 36% could allocate between NRS 1501 and 3000, and 20% of vendors spend between NRS 3001 and 5000 monthly on health services. None of the vendors rated their diet as poor or fair, with 78% considering their diet to be the best. Moreover, 66.67% of vendors sought health assistance for birthing before engaging in street vending, but after involvement in street vending, 91.67% were able to access health assistance. Additionally, only 4% spend NRS 150-300 for daily household consumption, while 64% can afford to spend more than NRS 500 on daily household consumption.

The findings thus as past studies (Husain et al., 2015; Martínez et al., 2018; McKay et al., 2016; Steiler & Nyirenda, 2021; Takyi et al., 2023), revealed street vending as a pivotal vehicle for empowering and sustaining livelihoods across multiple facets, encompassing socio-economic well-being. Street vending fosters economic sustainability while mitigating indebtedness, engendering empowerment among diverse demographic groups, securing future livelihoods, facilitating employment opportunities, and enhancing access to educational and healthcare services, in contrast to pre-street vending livelihoods. Despite its relatively modest scale, street vending exerts a profound and affirmative impact on the lives of marginalized and underprivileged middle and lower-income communities. Consequently, it is unequivocally affirmed that street vending possesses the capacity to empower and foster sustainable livelihoods.

Conclusion and Implication

The research examines the profitability of street vending, which is a kind of shadow entrepreneurship, and evaluates the impact on livelihood support, empowerment, and sustainability. The study results show that street vending in Dharan is predominantly by elderly male traders, but it seems that the level of social inclusivity is not steady. It remains uneven. Hence, it is a popular misconception among the Madhesh community that the business is usually associated with them. The findings indicated that street vending in Dharan is predominantly dominated by elderly males,

and its inclusivity within the community implies the presence of social inclusion is somewhat variable. However, the Madheshi community is generally associated with this type of business in common discourse. The study revealed a prolonged engagement of vendors in the business, spanning 20 to 30 years. Furthermore, it highlighted that individuals with either high levels of education or no formal education were the primary participants in such enterprises. Approximately 82% of the married vendors in Dharan were of urban origin and 88% of them owned houses. The study underscored that a majority of vendors lack ownership of farmland and livestock, relying predominantly on income generated from street vending. Additionally, it demonstrated that most street vendors invest minimal capital and possess just relevant skills or few skills, driven by challenges in securing alternative employment and a preference for self-employment.

The results of profitability (OLS) demonstrated a positive association with marital status, ownership of livestock, expenditure on education, and residential status while exhibiting an inverse relationship with a few capital investments, moderate and minimum standard consumption habits, rural origin, and experience. These findings suggest that married vendors, those with livestock and residential property, and individuals who exercise prudence in their educational expenditure may achieve higher profits and more stable earnings. Conversely, those with low capital investment, originating from rural areas, possessing extensive experience but maintaining a moderate level of consumption, may experience adverse effects on profitability in comparison to their counterparts lacking such attributes.

Similarly, a significant majority of vendors perceived street vending as a means to enhance their living conditions and livelihood. Almost 96% of vendors acknowledged that it plays a crucial role in supporting their survival and sustaining their lives. The study provides compelling evidence that street vending not only improves the quality of life for vendors but also acts as a vital component for maintaining their livelihoods. The results indicate that street vendors had the potential to earn over NRS 1000 and can significantly contribute to supporting family members, particularly in cases where there is no alternative source of income. This shadow entrepreneurship proves advantageous for those without their farmland and livestock, dwelling in tin-roofed houses, with only

a few able to employ family members in the business. The findings further demonstrate that a majority of vendors were capable of saving within the range of NRS 2000 to 20,000. Additionally, all vendors can manage educational expenses, with a preference for government schools. Notably, the health status of vendors after engaging in street vending has exhibited improvement across various dimensions, including a balanced diet and nutrition, regular monthly health-related expenses, maintaining moderate consumption habits, and enhancing pregnancy services. Moreover, the study reveals that while street vending was inclusive, it tends to be male-dominated; however, it served as a means to alleviate the financial indebtedness of vendors. The overall findings suggest that street vending plays a crucial role in empowering the lives of vendors and sustaining their livelihoods.

The findings of this study underscore the significant role of street vending as a growing form of shadow entrepreneurship in urban areas of Nepal. Particularly beneficial to low-income families and migrant populations, street vending's diversified and footloose nature suggests a lack of permanence among vendors. Local governments have a unique opportunity to regulate this informal sector, ensuring the provision of legitimate goods and services, while also potentially generating additional revenue through effective management. While formalization of the street vending sector will shed light on the shadow economy, proper addressing of the vendor location, operating hours, rights and duties, waste disposal, and compliance with the rules already in place is of paramount importance. It is up to the local policymakers to accept the fact that street vending is an integral part of many livelihoods and to come up with measures that address the negative impacts posed by urbanization. The key findings of this research serve both the aims of uncovering the intricacies of street vending dynamics and helping policymakers design an efficient way of regulating this growing facet of urban economies.

Limitations and Scope for Future Study

This study might also have some limitations as other previous studies. The sample size taken under study may not be enough to generalize the profitability and its effort to empower the vendors. It was only concentrated in Dharan city and it may not

be adequate to suggest any policies regarding shadow entrepreneurship. This study covered only the quantitative variables and and limited to some extent. Indeed, further study could attempt comprehensive study by adopting a larger sample size, more variables, and wider coverage with the qualitative aspect of shadow entrepreneurship.

The study assesses the profitability and its contribution to empowering and sustaining life through street vending. The study found many questions to address in future studies. This shadow entrepreneurship operates sincerely however cannot be formalized till the data is deepened by migrated people in urban streets. Future studies thus may explore the socio-economic effects of street vending as well as the quality and customer satisfaction aspects of the service provided by it. Additionally, future studies can assess the effect and resistance of government policy to regulate and formalize it on the vendors; concerns about their livelihood sustainability, and urban huddles while the urban shadow economy rises in the future.

Conflict of Interest

The authors declare no conflict of interest.

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