MSc. International Business and Politics Master Thesis

Untapped Potential In Nepal

A modular case study approach to the Nepalese Hemp industry and its position in the global value chain

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Abstract

This thesis investigates the Nepalese hemp industry and its position in the global value chain based on data obtained over four months of field research in Nepal. Leveraging a modular case study approach and combining it with qualitative data obtained by interviews, we first map the current state of the Nepalese hemp industry, with particular focus on the use of hemp in textile. Positioning the collected data into a global value chain theoretical framework, we uncover the underlying governance structures and power relations, which are then placed into the current legal framework both internationally and locally in Nepal. Secondly, we consider possible trajectories for upgrading and recommend avenues for change in order for Nepal to capture a larger amount of value in the global value chain. Our findings identify four nodes in the value chain of hemp in Nepal: first, villagers growing, collecting and processing the crop; second, middle men, who transport the processed yarn into larger cities; third, manufacturers and wholesalers, who weave the yarn into fabric and assemble the final products; and lastly, international retailers, who export the products abroad. This thesis pays special attention to the legal framework these actors are constrained by. The major legal powers we distinguish are the (1) legal framework, which imposes bargaining power on the (2) local Nepalese legislations. We uncover that in order for the legal framework to change in favor of cultivation of hemp, institutional or constitutive power is required from either international actors or the Nepalese diaspora network. Lastly, this thesis proposes avenues that warrant further research. Namely, other uses of hemp across different industries and the constraints the poor infrastructure in Nepal poses emposes on transportation of goods outside of the country.

Keywords: *Hemp, Nepal, Global Value Chain Analysis, Governance, Power, Legal Framework, International Law, Upgrading, Development*

List of Abbreviations & Glossary

CBD - Cannabidiol

GVC - global value chain

ICT - Information and Communications Technology

ILO - International Labor organization

INGO - International Non-governmental Organizations

TEPC - Trade and Export Promotion Centre

NGO - Non-governmental Organization

OECD - Organization for Cooperation and Development

THC - Tetrahydrocannabinol (drug)

TWAIL - Third World Approaches to International Law

WHO - World Health Organization

UNOCD - United Nations Office on Drugs and Crime

UK - United Kingdom

USA - United States of America

Villagers - rural population growing hemp in Nepal

Middle men - actors transporting hemp between villages to larger cities in Nepal

Manufacturers - actors weaving yarn into textile and creating end products in Nepal

Wholesalers - Nepalese actors selling hemp in local stores

International Retailers - international actors purchasing hemp products and exporting them globally

The following terms are used interchangeably in the thesis:

- Legal framework & regulation & law & legislation
- Value chain & global value chain & GVC
- Nodes & links & modules & parts of a GVC

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Chapter One: Introduction

"Older parts of Kathmandu are now rubble. A 62-metre tower put up in the 19th century, Dharahara, collapsed. More buildings fell down in Durbar square, a UNESCO world heritage site that is home to old temples. By mid-week over 6,000 were confirmed dead. The prime minister, Sushil Koirala, predicts a final toll of 10,000."

The Economist (2015)

"Two years after the devastating earthquakes that struck Nepal, the country is struggling to bounce back. Nearly 70% of the affected people still live in temporary shelters, and it is common to see damaged houses, temples without roofs, and earthquake debris lying around, even in the capital Kathmandu."

Ojha et al. (2017)

The quotes above describe the horrific aftermath of a 7.9 magnitude earthquake, which struck Nepal in 2015. The country, which is one of the least developed countries in the world (UN CDP, 2018), was left in shambles and has yet to recover. Nepal, a primarily agricultural country, is landlocked between India on the East, South and West, and China on the North. Over 26 million people live within 60 different ethnic groups and in vastly diversified climatic conditions. The world's tallest peak, Mt. Everest, sits on the Northern Himalayan range and covers 16% of the land area. This area covered with snow all year round marks the northern border. The middle belt of Nepal consists of a range of hills, valleys and lakes and occupies 65% of the total land area. The 'Terai' in the south is a large plain with alluvial soil and dense forest areas, national parks and conservation areas (Food and Agriculture Organization of the United Nations, 2019).

Though most of the country is covered by hills, 66% of the Nepalese population are directly engaged in farming (ibid.). However, as the terrain is uneven and the weather unpredictable, most farmers grow a diversified range of crops ranging from rice to potatoes, tobacco and orthodox tea. The unfavorable ergonomic conditions affect the quality of the harvest and thus leave the livelihoods of a large amount of the population subject to chance. The undividable conditions inherent to life in Nepal combined with the 2015 earthquake, which affected over 8 million people and destroyed much of the already poorly built infrastructure, present a long-term challenge for the South Asian country (ibid.).

Under all the difficult agricultural conditions, one specific plant draws focus. This plant is historically native in this region, and records dating as far as 8.000 BCE are found and show how it has spread through the rest of the world (Potent, 2019). The reason this plant is significant in the Nepalese context is because unlike all the other crops that are being cultivated, it grows naturally in the mild humid climate of the country. The plant thrives in the Nepalese soil, requires little to none maintenance and can grow on sloped terrain (ibid.). The plant we are referring to is hemp.

Hemp has been a controversial topic for decades grounded in its association with the War on Drugs. For many countries, this has meant that the cultivation of the plant has been completely outlawed, and any existing or potential industry surrounding the material has been barricaded (Vantreese, 1998). Nonetheless, more recent relaxations in the regulation have had a positive effect on the cultivation and use of hemp across a variety of industries. Due to a shift in the international perception of hemp, this research paper sets out to explore the plant's potential in the region where it has naturally grown.

If the negative image of the plant was mitigated, there may be a lot of untapped potential in using hemp for specific industries and selling the product on the global market. Drawing upon a global value chain (GVC) approach, this project will answer the following question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework."

The ambition of this paper is to first map the Nepalese hemp industry and understand the underlying forces affecting the relations within the global value chain. Secondly, within the context of development studies, we set out to present a number of actionable recommendations that could be applied in Nepal and result in secure inclusive development, thereby improving the livelihood of the Nepalese people. As the following chapter of this paper will explain the importance of hemp for Nepal is significant. Hemp is used in, among other things, industrial manufacturing, textile, constriction, pharmaceuticals and food. The frontiers of what is possible with the crop are constantly being pushed by research, and we would like to contribute to the global conversation by uncovering the ways in which the plant could alleviate a country, which was hit by natural disaster and is in desperate need of re-building. We would like to highlight already now that we are not discussing the use of cannabis for recreational purposes, but solely considering hemp plants that have no psychoactive effect.

A global value chain approach is useful in answering the research question as it helps understand the various relations within the links of the hemp industry in Nepal. Through the GVC framework, we can evaluate the new paths and actions the Nepalese actors can take in order to improve their competitiveness on a global scale. Our interest in the possible developmental advancements within the industry leverages the theory of economic and social upgrading in order to understand how the actors in the industry can maneuver in capturing more value, subsequently resulting in social development.

The GVC approach is complimented with a case study approach in order to conduct an in-depth analysis, which relies on qualitative data from interviews. This method of data collection is useful as this paper assumes a critical realist approach, where the true nature of the world is only accessible through empirical observations and interactions with actors, who are affected by the underlying forces of the structures they operate in. Through qualitative data collection, we can better tease out the underlying causal mechanisms that are not directly observable.

1.1 Delimitations

This paper delimits its focus on the value chain of hemp in the textile industry. The focus on the textile industry was decided upon the first week of field research in Nepal, as it is the most common use of hemp in the country and offered the most avenues for investigation. It was also the only industry, on which the Trade and Export Promotion Office collected data (TEPC, 2017). Nonetheless, the final chapter of this paper will offer an account of other industries, which could leverage the potential of hemp in Nepal. From now on, mentions of the hemp industry in Nepal directly refer to the textile industry, unless stated otherwise.

1.2 Structure of Thesis

This thesis comprises of seven sections. Section Two will offer the readers background information about the case of the Nepalese hemp industry, placing the country into an international framework of trade and law. Section Three defines the theoretical framework, in which the current literature on GVC analysis is outlined. Different perspectives on global value chain governance will be presented alongside the power relations identified across governance structures. Section Four will define the methodological underpinnings of this research and the case study approach. Section Five offers an analysis of data and maps out the current state of the hemp industry in Nepal. Section Six further discusses our findings and presents recommendations for the Nepalese actors, on ways they can capture larger value from the global value chain. Section Seven concludes.

Chapter Two: Background

Hemp has historically been a significant raw material in Nepal, used in amongst others in the textile industry. Dating back to 8.000 B.C. hemp was used as textile fiber and woven into fabric. By 2700 B.C. hemp was widely incorporated into major cultures in the Middle East, Asia, India, China. Japan and Africa. It is is one of two primary species of cannabis. Due to similar appearance the plant is often misidentified as marijuana, its sister plant. For this, a difference must be drawn between hemp, a crop used across a variety of industries, and marijuana, a THC abundant pant which was banned in the US and subsequently internationally after the US declared a nation wide prohibition of cannabis, known as the Marijuana Tax Act of 1937 (Torella, 2011: 20).

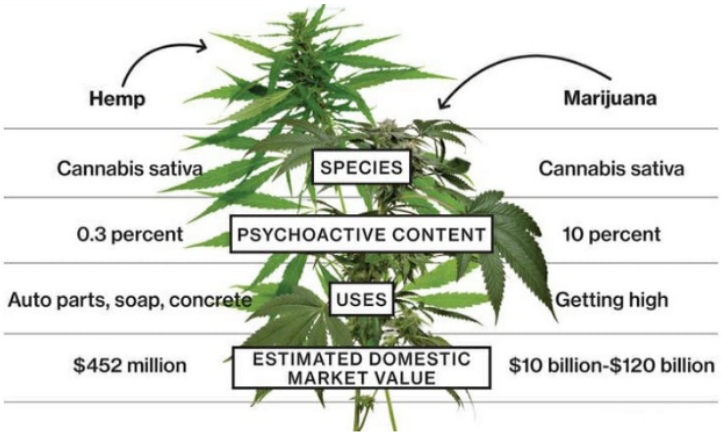

Figure 1: : Hemp vs. Marijuana, the differences explained (Cadena, 2018)

Both hemp and marijuana fall under the cannabis sativa strain, where marijuana is used for recreational or medical use and is smoked, inhaled or consumed as an edible, hemp is primarily used for industrial purposes (see Figure 1) (Cadena, 2018). This research paper does not wish to add to the discussion about marijuana, so from now on, any mention of hemp is referring to the non-THC plant, unless stated otherwise.

2.1 Historical Background of Hemp

In 1777 the United States (USA) categorized hemp as “one of the most profitable productions the earth furnishes on the northern climate, worthy of serious attention” (Torella, 2011:17). In the 17th and 18th century it was accepted on the medium exchange in the USA (ibid.) and until 1937 it was widely accepted within society (McCorristin, 2013:7). In Europe, hemp was used for food production, paper production and

clothing, and was extremely significant in seafaring, where it was used as textile canvas for sails and rope (Addelsperger, 2015: 198). Until the 18th century hemp and flax were the most used raw materials for textile yarns in Europe and until the end of the 19th century 75-90% of all paper worldwide was made out of hemp (Decorte, 2011:8).

It was not until the middle of the 20th century that hemp became widely connected to the recreational use of marijuana, which resulted in the cultivation of the plant gradually becoming illegalized. After the end of the prohibition era in 1933, and with the founding of the U.S Federal Bureau of Narcotics, campaigns connecting hemp with its sister plant degraded the public image of the plant as one that implies violent behavior and is connected to crime. This image, supported by the government and various lobbyists in public media, led to strict regulations and increased taxes to limit the production and distribution of hemp. In 1937, the US declared a nation-wide prohibition of hemp, known as the Marijuana Tax Act (Torella, 2011: 18-25).

It has been argued that the main drivers behind the ban of hemp were lobbyists from large corporations in the cotton and timber industry (ibid.: 20). One of the companies involved was DuPont, which developed a more efficient methods of pulping wood for paper production and invested heavily into nylon fiber. It was therefore in their best interest to ban hemp and globally mark it as a drug (ibid.).

After 1945, a negative image campaign against cannabis was brought to the United Nations, which resulted in prohibiting hemp in all member states through the 1961 ‘Single Convention on Narcotic Drugs’ (UNODC, 1962: 40). This convention was justified on the premise that hemp is a danger to health and human welfare (Cordell and Bruer, 1996). After this act was put into effect, Europe slowly ceased any activities relating to hemp production and research, which resulted in practically complete abandonment of industrial hemp as a product (Bouloc, 2013).

In 1992, due to a change in European regulations, the prohibition of hemp cultivation was abandoned, and several countries started investing into the industry once again (Decorte 2011: 5). Germany and the Netherlands were investing heavily into non-THC seeds and the research of hemp use. By 1997 Germany had introduced first hemp products to the market (ibid.: 8).

Today hemp is still suffering from a negative image, widely connected to recreational use of marijuana as a drug. The symbol of the cannabis plant is a symbol with a very distinct shape, making it easily recognized. . The general public is not thoroughly informed about the fact that cannabis sativa is a crop, which has more

than a hundred varieties. Nonetheless, in the recent years more attention is being paid to hemp and its potential, leaving many hopeful of a renaissance in the industry (Carell 2018)..

2.2 Significance of Plant in Nepal and the Legal Framework Affecting the Crop

In Nepal, hemp has grown wild as a domestic fiber for centuries and has been used for several traditional purposes including consumption, clothing and farming rotation (Clarke, 2008). For the last half century, the Nepalese government has subjected itself to international pressures to illegalize this domestically abundant crop and now risks being left behind while the West develops industries around this same crop. The following section will outline the historical circumstances that led to this.

The change in the international framework of the UN had impact on the perception of hemp in all of its member states, and "weaker states" like Nepal where hemp was growing naturally did not have the power (or questioned this illegalization). Even though there was an exception clause. Third World Approaches to International Law (TWAIL) scholars argue that international politics is illegitimate as it sustains the subordination of the Third World by the West (Mutua and Anghie, 2000: 31). This argument can to some extent be applied to this case, as the "West" banned the crop without considering the cultural and agricultural impacts it has in various parts of the world. China, a stronger state, never banned hemp the same way as Nepal did, and today Chinese hemp accounts for 75% of all Global export. From a TWAIL perspective, Nepal succumbed to the bilateral pressures from the United States to ban all forms of cannabis in 1976 (ibid.: 35). Further, Nepal did not have a seat at the table during the negotiations of the UN Single Convention on Narcotic Drugs. Nepal is highly reliant on aid money from the opposing political coalitions, in effect having less international power to influence negotiations. The power asymmetry is not only a result of dependency on foreign aid, but also the lack of access to information due to poor technological infrastructures. TWAIL scholars consider these facts as classical examples of how colonial hegemony continues into post-colonial times. The following section will present a more detailed account of the socio-economic context in Nepal, as to provide further insight into why the country holds a weaker position on the global scale.

2.3 Socio-Economic Context of Nepal

Nepal is the fourth poorest country in Asia per capita, and is actively seeking ways in which to increase the value of their agriculture (Agro Trade and Investment, 2017). The reason being that agriculture employs almost 65% of the population, while representing a relatively modest 31% of GDP. This is almost equal to the 29% of GDP stemming from remittances from diaspora communities (ibid.).

The aim of developing the agricultural sector has been a priority for many years as it is the primary employment sector in the country. Upgrading the quality of equipment used is incredibly difficult, due to the terrain being uneven in many areas; 13 million people's livelihoods are dependent on terraced farms (International Development Research Centre, 2018). These terraced farms are in most cases not compatible with modern machinery, which are tailored for large, plained areas. Many efforts to increase productions yields have therefore failed.

The demographics of the country are incredibly diverse with the 29.7 million people spread across 125 different ethnic groups, with 123 languages (CIA World Factbook 2019). It is also a young country, where the median age is 24.5. Also, more than 25 percent of the population living below the poverty line. Culturally, the majority of the country follows the caste system. The caste system divides Nepalese society into different classes based on occupation and social status, despite the system being illegal since 1962 the divisive practices of this tradition is still widely practiced; especially in rural societies. The country is also heavily burdened by corruption and is the fifth most corrupt country in South Asia (Transparency International, 2018).

2.4 Nepal in the Context of the International Legal Framework

Following the US-led war on drugs, two things were imposed on the international scene: (1) soft use of power by the United States to encourage other countries to join this mission, and (2) hard changes in the form of international institutions, such as the United Nations Office on Drugs and Crime (UNODC), creating resolutions that prohibited the cultivation, use and sale of certain crops, hereunder cannabis. The war on drugs agenda resulted in the illegalization of all cannabis plants in Nepal. This left the country unable to monetize off growing high-value international markets, such as pharmaceuticals and construction. Meanwhile, in the US an increasing amount of states are legalizing all forms of cannabis, and in 2017 the US domestic hemp industry grew by 16% making it worth $820 million (State of Hemp, 2018).

The first legal control of substances happened in Nepal in 1960, where the government introduced the 'Liquor Control Act'. This Act also covered cannabis to the extent that it was now compulsory to have a license to sell and produce the crop. The next significant legislation affecting the crop was the 'Narcotics Drugs Control Act' passed in 1976, five years after president Nixon announced that drugs were 'public enemy number one' and began the so-called war on drugs (Dhami and Neupane, 2014: 250). The war on drugs agenda was rolled out from the United States through foreign policy, diplomacy and in some instances

military intervention (Bullington and Block, 1990: 4). Some scholars argue that the war on drugs was used as a veil to intervene in the political scene of foreign nations and assert their power, where a motivating factor was the government's attempt at fighting leftist sentiments (ibid.). In Nepal, there was no military intervention during these years, albeit the United States was present and leveraged a great deal of soft power largely associated with foreign aid. As mentioned above, foreign aid was one of the tools that some scholars argue the United States used in order to influence nations during the war on drugs. Nepal was very dependent on foreign grants in the early 1960s, which were largely based on bilateral agreements. The donor countries of these bilateral agreements undoubtedly held a lot of power and influence within the country, as an economic dependency began to be established. Back then, some of the largest donor countries included China and the Soviet Union; this was a factor that the United States was aware of, as they were also a large donor to Nepal at the time. Throughout the 1970s the support from the United States increased, with a total of $285 million in contributions between 1970-1988 (Savada and Harris, 1993). Throughout the same period the country began relying more heavily on international institutions such as the World Bank and almost a dozen United Nations agencies. This could be interpreted as Nepal opening to the liberal belief that development could be found within international world order and rule of law.

Though various legislations were put into place affecting the Nepalese legal system, the most significant remains the UN 'Single Convention on Narcotic Drugs' introduced in 1961, which was the first international treaty to prohibit the use of cannabis (UNODC, 1962: 40). Cannabis was classified under Schedule IV, meaning that it was affected by some of the most stringent restrictions alongside plants such as opium and coca. According to the Canadian senate it was the United States who, during negotiations, insisted that cannabis be included in this category, based on the argument that its use was widespread (Senate Special Committee on Illicit Drugs, 2002). Later, the World Health Organization (WHO) uncovered medical uses of the plant which should categorize it within a less strict group, yet there has been no effort in changing the previous structure (ibid.).

One notable, albeit often overlooked, element of the UN convention is Article 28.2 which states: "*This Convention shall not apply to the cultivation of the cannabis plant exclusively for industrial purposes (fiber and seed) or horticultural purposes*" (UNODC, 1961). In practice this in most cases refers to hemp. This is the paragraph that has allowed many countries to have a flourishing hemp industry for decades, while still upholding the international treaty; e.g. France, China and Canada. National legislation in these countries are bound by the regulation of crops being certified hemp, i.e. containing low amounts of THC and high amounts of CBD. Now, as perceptions of cannabis are shifting, and the war on drugs is slowly being rolled back, Western countries are gathering around this potential industry. In 2016 Europe saw a

32% increase in hemp cultivation. Producers have focused on high-value industries such as consumption, pharmaceuticals and industrial products for the automobile industry (State of Hemp, 2016). It is estimated that the North American and European market for CBD as a pharmaceutical product is currently worth €2 billion (The CBD Report, 2017). Combining this with the fact that the European Union has opened its markets for import of hemp seeds, there could be a potential for Nepal to profit off its abundant crop (EMCDDA, 2017). However, due to the expensive process of verifying that hemp plants contain low amounts of THC paired with the harsh national legislation, this is an unlikely scenario (Pant, 2016: 94). Instead, the Nepalese government uses resources every year destroying hundreds of hectares of wild growing cannabis plants (UNODC, 2005).

Chapter Three: Literature Review and Theoretical Framework

The following section will define the theoretical framework of our research. As the research questions suggest, the global value chain framework serves as the central pillar for our analysis. However, we are not only interested in describing the state of the industry in Nepal, but we also wish to explore how the country can capture larger economic value from its contribution and participation in the overarching global value chain (GVC). As a prerequisite to this, we are considering the need for developing capabilities, which will add to more value-adding activities and subsequent value generation. Global Value Chain theory is a useful way to understand how global chains work and what mechanisms have an effect on the country's position in those chains.

GVC analysis had gained an increased theoretical significance since the late 1960s when international companies started dividing their supply chains in hopes of finding low-cost and capable suppliers offshore (Gereffi, 2014: 10). The global value chain approach generally characterizes the global economy "as consisting of complex and dynamic economic networks made up of inter-firm and intra-firm relationships" (ibid.: 10). Today the whole world is connected through trade and the global value chain framework allows one a deeper understanding of how industries and economic sectors are organized. It is a useful approach for tracing shifting patterns of global production and tracking the geographically dispersed actions and actors within an industry (Gereffi and Fernandez-Stark, 2011: 10). In order to answer the research question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework."

We are first and foremost interested in the possibilities a country has to develop its capabilities and capture greater value in the global economy. Ponte and Sturgeon (2014) argue that countries can develop and improve their relative positions in the global economy by developing specialized and large scale-industries, thus lowering the barriers of entry to international trade (196). We are interested in finding out how Nepal can capture larger value from the hemp industry, and a prerequisite to doing so is that the country must develop its capabilities to become competitive on a global scale. With the global economy we see large potential for development, but also the possibilities for exclusion and marginalization, thus selecting a developmental strategy must be well thought through from different angles. The GVC framework is useful in understanding how inclusion and exclusion take place at the industry level (ibid.). In order to answer our

research question, we will draw on the upgrading possibilities, as defined by Gereffi (2014) in this paper 'GVCs in a post-Washington consensus world'.

When consulting the existing GVC literature, it quickly became evident that most theories characterize the value chain based on one firm's dominant position. Though focusing on global value chains with a 'lead firm' is an effective way to understand the production chain, the Nepalese hemp industry does not have one dominating actor. Rather it forms a web of smaller entities. In order to diversify our analysis and understand all the forces at play in the industry, we will combine traditional GVC governance literature with the "stylized typology of power in GVCs" as proposed by Ponte et al., (2017). Combining these two approaches will provide us a more accurate understanding of the relationships that are within and affect the Nepalese hemp value chain. Ponte et al., (2017), categorize power as two dimensional: "an arena of actors and transmission mechanisms" and arrive at four ideal types of power (ibid.).

Taking a modular approach to the theory-building, we propose three scalar dimensions (1) the 'macro-level', defined as the international legal framework and the local regulations in Nepal; (2) the 'meso-level', which considers the various governance and power structure in the GVC; and finally (3) the 'micro-level', which is mainly guided by the end market and considers the consumers dictating demand in export markets. In doing so, our goal is to connect "highly compatible theories into a framework which is more comprehensive than what has come before" (Ponte and Sturgeon, 2014: 190). A modular approach, as opposed to a full analysis of the entire value chain, allows the development of discrete theoretical areas, which are helpful in answering specific questions and identifying similarities and contact between them. Ponte and Sturgeon (2014) argue that "given the complexity of economic systems, any theory aiming to comprehensively explain and predict outcomes for entire industries, countries, regions or the global economy as a whole should be treated as highly suspect" (199). Analyzing the entire value chain, meaning that we also analyze the Chinese, Canadian and German markets, would lead to an overly complex analysis with too many layers of interdependence that would obscure the research process. A modular approach, in contrast, has a more modest research ambition, namely, to critically examine a specific module of the value chain, while acknowledging that it only represents a partial analysis of its totality.

This following section will in greater detail define our theoretical framework and combine it with existing literature, both presenting theories as well as identifying the gaps and our contribution to the field of Global Value Chain theory. First, we will present the types of governance found in GVC literature as proposed by (Gereffi et al., 2005: 83), then continuing on to define the types of power found across GVCs. Moving on

to upgrading within the Global Value Chain we will discuss the two primary distinctions of upgrading as proposed by Gereffi (2014). Namely 'economic upgrading', which if further divided into process upgrading, product upgrading, functional upgrading and inter-chain upgrading and 'social upgrading'. Finally, we will conclude this section with a proposition as to how we plan on operationalizing the theory and combining the different frameworks.

3.1 Governance Structures in Global Value Chains

The increasing popularity of GVC literature and analysis is partly the product of three paradigm shifts within global production and trade. First, today we see a change across multiple fronts, such as in information and communications technology (ICT) and transportation, transforming both the value chain as well as global capitalism. Simply put, these shifts are altering the institutional and geographical organization of industries (Gereffi, 2014: 9). Second, these changes have been accompanied by globalization processes, which have affected the governance of global industries initially in the 1970s and 1980s with the emergence of buyer and producer-driven commodity chains. Third, another shift in the 2000s changed added new forms of coordination within GVCs. The Global Value Chain framework focuses on how GVCs are structured globally and how value is captured at various parts of the chain. It is possible to analyze GVCs from two different starting points. The first is top-down by evaluating the different governance structures one might find in a GVC and the second is bottom-up, which is more focused on the possibilities of upgrading within the GVC. The former will be expanded on in this section, whereas the latter will be discussed further on in this chapter (ibid.: 10).

Initially, Gereffi (1994) identified two types of governance within global value chains: buyer-driven, later named 'market' and producer-driven referred to as 'hierarchy.' More recent literature has further expanded the network and has identified three distinct modes of inter-chain coordination, namely: modular, relational and captive (Gereffi et al., 2005: 83). These three network governances fall in between the original market and network governance types, in the order in which they are written above. The spectrum of power relations in a GVC, in this case held by a lead firm or suppliers, will vary between 'producer-driven chains' where "power is held by final-product manufacturers and is characteristic of capital-, technology-, or skill-intensive industries" (Gereffi, 2014: 13). Moreover, on the second side of the spectrum, the 'buyer-driven chains' are dominated by "retailers and markets of final products that exert the most power through their ability to shape mass consumption via dominant market shares and strong brand names (ibid.).

Gereffi et al. (2005: 85) state that three factors determine the governance type of a global value chain. These factors are the: 'complexity of transactions'; 'codifiability of information'; and 'capability of suppliers' (ibid.: 85). Lead firms increase complexity when they add new products to their portfolio, however similarly they can decrease said complexity by creating technical and process standards (ibid.: 85). For example, information can become easier to codify when standards defining the hand-offs between trading partners are agreed upon and easily defined. Furthermore, once standards are codified, it is possible to "reuse system elements - or modules - as new products are brought on stream" (ibid.: 85). Gereffi et al. (2005: 85) thus propose that these three factors form the central pillars of the theory and allow us to identify the different types of governance structures present in 5 main types. We will now present the five governance structures with a short description based on the three factors as proposed by Gereffi et al. (2005).

3.1.1 Markets

Market governance is appropriate when the product is simple, the knowledge surrounding the product can be easily codified, and suppliers have the capabilities needed to make the demanded products with little input from the buyers (Gereffi, 2005: 86). Transaction costs will be low as the product knowledge is codifiable and easy to transfer between parties, and with multiple capable suppliers the cost of switching between different partners is low for both the supplier as well as the buyer (ibid.: 83). Buyers and suppliers generally conduct business at more of an arms-length than in the other governance types, as neither party is heavily reliant on the other. Suppliers are likely to be dealing with commodities, as the market is often characterized as one having standard products which and governed by little explicit coordination (ibid.: 86).

3.1.2 Modular Value Chains

Modular value chains deal with transactions that are more complex than ones we would find in the market but are easily codifiable, having a "modular product architecture and technical standards that simplify interactions by reducing component variation" (ibid.: 86) and unify the product with specifications. but codifiable, and where capable suppliers are available. Suppliers will produce products which are specific to the buyer's needs and specifications, however detailed they may be (ibid.: 84). However, like in the market economy, thanks to the codification of complex information and little explicit coordination, the cost of switching between partners is relatively low.

3.1.3 Relational Value Chains

Relational value chains are characterized by complex transactions, which cannot be codified, albeit the supplier capabilities remain high (Gereffi, 2005: 86). A relational value chain will be found in instances where a significant amount of tacit knowledge must be exchanged between the partners, and the high competencies of the supplier are motivation for the buyer to outsource the production into capable "hands" (ibid.: 86). Transferring tacit knowledge is characterized by high levels of explicit coordination and frequent face-to-face meetings, which "makes the cost of switching between partners high" (ibid.: 86). The mutual dependency is characterized by the fact that the buyer has to invest in the supplier by transferring the knowledge that allows the supplier to be able to deliver the complex transaction; in return, the supplier is dependent on the buyer to purchase the products.

3.1.4 Captive Value Chains

Captive value chains are characterized by low supplier capabilities, but rather complex product specifications, which are easily codifiable (Gereffi et al., 2005: 86). An example of this type of governance can be found in narrow assembly tasks, where the supplier is highly dependent on the lead firm or buyer "for complementary activities, such as design, logistics, component purchasing, and process technology upgrading" (ibid.: 86). The supplier, being thus in a captive relationship, is motivated by receiving enough resources and market access from the lead firm/buyer, making an exit an unattractive option. The cost of switching for a supplier is thus significantly high and the level of monitoring and control by lead firms will be equally high (ibid.: 86). The power asymmetry falls in favor of the buyer.

3.1.5 Hierarchy

The last governance type, hierarchy, is characterized by highly complex products and hard-to-codify specifications, where competent suppliers are hard to come by (Gereffi et al., 2005: 87). An example is the manufacturing industry, where the lead firm is essentially forced to create an in-house unit, where they can "exchange tacit knowledge between value chain activities as well as effectively manage complex wens of inputs and outputs and to control resources, especially intellectual property (ibid.: 87). The reasons for bringing activities in-house are countless. For example, high asset specificity increases the risk of opportunism from the supplier; though some argue that this risk can be lowered through trust, repeated transactions and mutual dependency (Gereffi et al., 2005: 83). Still, the transaction costs increase due to the difficulty of codifying the information (ibid.: 83).

3.2 A Genealogy of Power in GVCs

Traditionally power in a Global Value Chain is categorized as and commonly thought of as 'coercive' where actors will utilize incentives and sanctions to compel other actors to act according to their wishes (Ponte et al., 2017: 1). However, as the GVC analytical lens has lately been expanding, different conceptualizations and theorizations of power have emerged. One example is when a lead firm begins defining industry standards and certifications (ibid.: 2). Similarly, through social movements and consumer-driven initiatives, change can be affected in the GVC. Thus the GVC literature does not necessarily purely focus on one and clearly defined "lead firm." (Ponte et al., 2017: 1)

Ponte et al. (2017) constructed a stylized typology of power, categorizing it as possessing two dimensions: the arena of actors, where power is wielded in dyads or collectives; and the transmission mechanisms of power, defined in two ideal-types as 'direct and diffusive' (ibid.: 5). Combining these two dimensions, they arrive at a four-category typology that incorporated many of the types of power found in GVCs (see Table 1). Below we will define them one by one. However, first, we will expand on the two dimensions of power in more details.

3.2.1 Two Dimensions of Power in GVCs

3.2.1.1 Transmission of Power: Direct and Diffuse

GVC literature, amongst others, has begun differentiating (at least implicitly) the types of power that are possible to observe in the world, between direct and more diffusive power. "In *direct forms* of transmission, the actor or collective wielding the power and those who are objects of it are relatively easy to identify by all parties (Ponte et al., 2017:10). This form of power is usually intentional and goal oriented. It is furthermore "imposed" by a group of actors on an individual who "possesses the power" (ibid.: 10). However, power transmissions can also be of a less direct and intentional nature, being more defuse. For instance, by following broader societal trends and leading with 'best-practices' can affect change across the whole industry. Diffuse power is, compared to direct power, less intentional and "most commonly enacted through collective actions" (Ponte et al., 2017:10).

3.2.1.1 The Arena of Across: Dyads and Collectives

The second dimension differentiating the types of power in GVC literature is the 'arena of actors', where an "arena is where specific actors or collectives engage with other actors" (Ponte et al., 2017: 12). A distinction is drawn between the 'dyadic arena' and the 'collective of actors,' the former is characterized as

being an arena where the relationship of actor A and actor B is built into the definition of power. The dyadic arena is also the one mainly discusses by Gereffi's (2014) research in lead firms, where he characterizes five different types of governance within a GVC (ibid.: 12). "Power in a dyadic pair is shaped by relative bargaining positions rooted in purchasing power and competence power" (Ponte et al., 2017: 13).

The second arena involves 'collectives' of actors, where the "locus of power is the function of the collective behaviors of multiple players acting simultaneously (intentionally or not) and/or of more institutionalized collectives such as business associations, multi-stakeholder initiatives, or states" (ibid.: 13). A collective can both be an individual actor with "uniform and coherent rules, leadership or organization" (ibid.: 13) but it can also be a collective that is loosely organized and coordinated.

Now that we have established the two dimensions of power, we will discuss how these dimensions interplay in the definition of four types of power as presented by Ponte et al. (2017).

	Direct	**Diffuse**
Dyadic	Bargaining Power	Demonstrative Power
Collective	Institutional Power	Constitutive Power

Table 1: Four typologies of power in GVCs (Ponte et al., 2017: 13)

3.2.2 Four Types of Power in GVCs

Combining the two types of transmission mechanisms and the two arenas of Acros from the previous section, Ponte et al., define four ideal types of power in GVCs: 'bargaining power', 'institutional power', 'demonstrative power' and 'constitutive power' (see Table 2 below). However, it is important to stress that the types of power are ideal types and as such are not strict categories, that differ only in degree (Ponte et al., 2017:13). "One type of power can transform into another type, for instance when vaguely defined best practices as 'de facto' standard or even maintained and enforces as a 'de jure' standard - representing a shift from diffuse to more direct power within collectives" (ibid.: 13). It is thus possible to create an evolutionary analysis of how different transmission mechanisms and actor arenas overlap and evolve over time (ibid.: 13).

3.2.2.1 Bargaining Power

Bargaining power is most commonly found in GVC literature, which focuses on lead firms in advanced economies and suppliers in developing countries (Ponte et al., 2017: 14). Here, the power of the lead firm is based on "control over distribution channels, design and customer relationships in the end market" (ibid.: 14). Nonetheless, the arena of actors is quite diverse, and bargaining power can be found to different degrees in all the governance types as proposed by Gereffi (2014). Bargaining power is "internal to the firm in a hierarchy, strongly dyadic in the captive form" (ibid.: 14) less dyadic in the relational form and significantly weaker across the modular and market governance types. Generally, the arena of actors consists of firms and firm-to-firm relationships (ibid.: 15).

3.2.2.2 Demonstrative Power

Demonstrative power is one which, through a demonstration effect (either amongst suppliers or potential suppliers), affects change across a variety of functions and actions. One such example is when a specific form of upgrading is adopted by one actor, which is then adopted by the competing suppliers as well. If for instance, some suppliers cannot assimilate to this change, they may lose their standing and be 'excluded' from the GVC, or they are forced to 'downgrade' to "less demanding customers" (Ponte et al., 2017: 15). Demonstrative power can also be imposed in different ways, for example when downstream firms impose new requirements for their upstream suppliers (ibid.: 15).

3.2.2.3 Institutional Power

Institutional power is a form of power, exercised by formally organized collectives, such as business associations and multi-stakeholder initiatives or units within the state (Ponte et al., 2017:16). This form of power is controlled and developed in collective arenas and is "dependent upon the strategic actions of groups of actors, or upon the rules set by formally organized collectives" (ibid.: 16). The result is coming up with specific requirements such as human rights, environmental laws or rules about sustainability (ibid.). Though like bargaining power, institutional power is direct, the difference is that the rules and regulations are derived from a collective of actors, that form a group which has a clear membership in an initiative or an organization, using specific standards and are formally organized (ibid.: 16).

3.2.2.4 Constitutive Power

As the formalities in institutional power slowly diminish, institutional power morphs into constitutive power. This form of power manifests when collective arenas and actors within them combine their efforts, although they are not clearly defined by any specific membership or interest (Ponte et al., 2017: 17).

Constitutive power will affect the GVC structure through collective actions. However, such power will not have any focal point that directs influence (ibid.: 17). One example of such power is social movements on corporate conduct and transparency.

	Direct	**Diffuse**
Dyadic	**Bargaining Power** ● Lead firm in advanced economies and suppliers in developing countries ● Strongest in hierarchies and captive relationships	**Demonstrative Power** ● Change affected by demonstration and subsequent assimilation ● Spreads across the value chain and can affect exclusion or downgrading of certain actors
Collective	**Institutional Power** ● Formally organized collectives such as business associations ● Can be leveraged via industrial standards and best practices	**Constitutive Power** ● Collectives with no clear formal membership or interest ● Shapes GVC via collective action ● Can be leveraged by social and consumer movements

Table 2: Four Typologies of power in GVCs (Ponte et al., 2017: 15)

It is important to consider the fact that the four types of power as proposed by Ponte and Sturgeon are not mutually exclusive and can be found in various degrees combined across the GVC (Ponte et al., 2017: 15).

3.3 Upgrading in Global Value Chains

The emergence of global value chains has opened up new possibilities for development and industrialization. Developing countries can participate in the global economy by developing a wide range of competitive tasks and new capabilities (Kummirtz et al., 2017: 2). Cattaneo et al. (2013: 14) argue that there are three primary measurements that determine a country's competitiveness in relation to the GVC literature: (1) the ability to join a GVC, (2) the ability to remain in the GVC, and (3) the ability to move up

the GVC. It is becoming increasingly important for countries to understand how they best integrate themselves in GVCs at the point where they can retain the largest amount of added-value, rather than developing entire domestic industries. The benefits of being an active part of the interdependent international economies are becoming too great for domestic industries to compete with. As we have discussed earlier on in this section, we are interested in Nepal's potential to develop its capabilities within an already established industry. Thus, we will be looking at the country's ability to move up the value chain and capture larger value. In other words, we are interested in the upgrading possibilities Nepal has within the value chain of hemp. Due to the scope of this paper, we will not be discussing the country's ability to remain in the GVC.

Upgrading within a GVC is a 'bottom-up' perspective, which "focuses on the strategies used by countries, regions and other economic stakeholders to maintain or improve their position in the global economy" (Gereffi, 2014: 12-13). In other words, upgrading deals with the ways a country can change the structure of its economy towards higher value activities (Salido and Bellhouse 2016: 7). This fact has drawn much attention from development theorists as they can analyze new path to improve the competitiveness of low- and middle-income countries. Gereffi (2014) discusses the two typologies of upgrading; 'economic upgrading,' resulting in economic gains for participating in the global economy and 'social upgrading,' which translates into good jobs and good living conditions (ibid.: 16).

Though one would expect that upgrading economically would have a positive social impact as well, in both developed and developing countries, concern has been raised that not only does economic upgrading not translate into social upgrading, but, often times, economic upgrading leads to social downgrading (Gereffi, 2014:17). Whether this downgrading happens in the form of deteriorating labor conditions or unstable employment, it is important to pay attention to and understand how economic upgrading can affect the country of inquiry. The following section will define the two forms of upgrading in greater detail.

3.3.1 Economic Upgrading

Economic upgrading refers to the strategies and capabilities actors take to "climb up the value chain" and capture larger value (Ponte et al., 2014: 53). Economic upgrading is directly linked to "increases in competitiveness in value added processes and with national gains in productivity and labor qualifications" (Salido and Bellhouse, 2016: 9). The strategies actors can adopt will include moving on from low-value to relatively high-value activities in GVCs. A variety of improvements across production methods, quality of

product, enhancing of capabilities, can increase the value gains thanks to increased efficiency or total volume of sales (ibid.: 13).

Value in this case refers to the economical gains created within a GVC. Each part of the value chain contributes some strategies or actions, which will increase the amount of value in the chain. When evaluating the value added, it is important to be adopt a rigorous analytical method, as not to fall into the pitfall double accounting. When actors add value to a product, they also need to invest a certain amount to participate in the chain, represented as an expenditure, which offsets how much of the total value they capture. In order to understand the value creation and distribution within a GVC, then, a whole-chain calculus must be conducted in order to accurately identify the value that created in a specific part in the chain. Thereafter, using this information to evaluate the best forms of upgrading in a given context. In literature, four classifications of economic upgrading can be found: process upgrading, product upgrading, functional upgrading and inter-chain upgrading (Humphrey and Schmitz, 2002; Cattaneo et al., 2013: 29; Ponte et al., 2014: 53):

3.3.1.1 Process Upgrading

Process upgrading is one of the most common types found in international production networks and involves "transmitting input into outputs more efficient by reorganizing the production system or introducing superior technology" (Humphrey and Schmitz, 2000: 19). This form of upgrading is often achieved by improving the organization of production or through introducing new technologies with the goal of reducing per-unit costs.

3.3.1.2 Product Upgrading

Product upgrading is achieved by "improving the quality of the product, allowing for increased revenue through the sale of higher-value added products" (Salido and Bellhouse 2016: 10). In other words, it implies developing capabilities that create a more sophisticated product that has higher value. As an example, improving the quality or functionality of a product can yield higher value. Product upgrading is most commonly found in value chains where a 'lead firm' has large influence. (ibid.: 10)

3.3.1.4 Functional Upgrading

Migrating into higher-value added functions in the value chain is characterized as functional upgrading. It involves "incorporating activities into the productions process that increase the value added but may not be directly related to the product" (Salido and Bellhouse, 2016: 10). The activities will consist of increasing the skill level of production, sometimes including taking over up- and downstream activities, other times it

will include abandoning old practices. An example of functional upgrading is among others designing products, sourcing and logistics or delivery, packaging and transporting the goods or marketing the brand in global markets. All of these activities result in bringing the end-consumer closer to the supplier.

3.3.1.5 Inter-chain Upgrading

Whereas the previously mentioned forms of upgrading concern movement within one value chain, inter-chain upgrading is achieved by moving into completely different value chains. It involves "adapting production and competencies to enter a new value chain or production network, where production and processes may or may not change, but both immediate and final consumers are in new sectors" (Gereffi and Sturgeon, 2006: 18). An example of inter-chain upgrading is a company, which produces leather shoes and moves on to producing leather seats for cars. The end result is always expanding the number of buyers in a market and creating new opportunities for leveraging existing competencies (Salido and Bellhouse, 2016: 11).

3.3.2 Governance Structures and Economic Upgrading

Existing literature links various types of upgrading to the forms of governance in GVCs. Ponte and Sturgeon (2014) argue that chains dominated by captive relationships will offer better conditions for process and product upgrading for local producers, who are actively engaged with buyers (ibid.: 53). At the same time, captive relations will often discourage functional upgrading (ibid.: 53). On the other hand, chains characterized by market transactions will be more likely to promote functional upgrading, along with the transfer of new capabilities to different value chains (ibid.: 54). "The knowledge for this to happen (market, customer preferences, design), however, seems to accrue in relationships with smaller buyers and/or domestic markets, and in emerging economies rather than developing countries" (Ponte and Sturgeon, 2014: 54). Finally, network-based chains characterized by relational and modular relationships can foster all types of upgrading. Ponte and Sturgeon (2014) conclude that there are differences between firms implementing dispersed versus concentrated value chain configurations in terms of the likelihood of upgrading local partners from developing countries.

The governance structure is, however, not the sole determinant of what forms of upgrading are possible or likely in a specific value chain. In line with the three levels of analysis this research approach, are the three factors discussed by Ponte and Sturgeon (2014): regulation, governance, and end-market. Governance, discussed above, plays an important role in defining the possibilities for upgrading, albeit domestic regulation and end-market demands are factors to which we must pay equal attention.

Poor regulation standards will have a negative effect on the upgrading possibilities for various reasons. For one, weak enforcement of laws can cause industry inefficiencies due to lack of communication and implementation of processes. Other times, "ill-designed government incentives can undermine product quality" (Ponte and Sturgeon, 2014: 55). Subsidies and tax breaks can affect domestic investment and lead to over-investment in areas, which will have no effect on the quality or quantity of actual production (ibid.).

The end-market will generally have a positive effect on economic upgrading, as it may reinforce investment in equipment or raise quality (Ponte and Sturgeon, 2014:53). Demand in the end-market can present upgrading opportunities, which will affect the diversification of the products, due to "increase requirements of customers in some of these markets" (ibid.: 54). Upgrading strategies can often promote the ability to offer a portfolio of different products, which have different qualities and specifications. For example offering different grades or products in terms of quality, or sustainable certified products to a variety of buyers in end-markets are an important motivation for upgrading strategies (ibid.).

3.5.2 Social Upgrading

Throughout the past decade, there has been an increasing focus on social upgrading. Social upgrading may be defined "the process of improvement in the rights and entitlements of workers as social actors by enhancing the quality of their employment" (Barrientos et al., 2010: 7). Further, it can be understood in relation to the OECD's definition of inclusive growth, which states that economic growth must be dispersed fairly across society and create opportunities for all members (Salido and Bellhouse, 2016: 10-11). Measurements of social upgrading include total employment, wages, the female share of employment and labor conditions (ibid.: 11). While some labor standards are codified on a global scale, local government still need to pay special attention to their population's situation and at times apply voluntary standards. Concern about the effects of globalization combined with inadequate government regulation raise questions about the social and environmental impacts of international trade (Kumitz et al., 2017:13). The intention of this paper is driven mainly with the ambition of improving the average socio-economic status of the overall Nepalese population. Therefore, social upgrading could be inspected in the same way as economic upgrading; as it is useful to understand in which way the opportunities of engaging in a GVC affects the society on a social level as well. The reason that this is useful to understand is that economic growth which is not inclusive may not necessarily yield the desired results that frame the research question.

Higher social and labor standards can increase the demand for goods from reputation conscious international buyers, however they can also increase labor costs. There is no direct correlation between improved social conditions and improved quality of goods, due to the fact that producers can try and save money in the production process. Nonetheless, recently a growing number of studies has proven that economic upgrading can be positively associated with improvement in social conditions. A satisfied workforce will lead to higher productivity, lower labor turnover and an increased position in the value chain due to stable supply (Kummtizt et. al 2017: 13).

3.4 Operationalizing the Theoretical Framework

The ambition of deploying the global value chain framework is to understand how the Nepalese hemp industry fits into the global industry, and what factors are affecting the actors in the field. Taking a modular approach, this research assumes three levels of analysis: the macro-level (regulation), the meso-level (governance and power of GVC) and the micro-level (end-market and actors). Understanding the international framework and its implications on the Nepalese government and law is important in identifying the various power dynamics, which constrain the industry. We have identified the UN international framework and the legal regulations surrounding the industrial use of hemp in Nepal as playing a vital role in shaping the industry's legal framework. Pontes' et al., (2017) typology of power will form the basis of evaluating this framework. The meso-level, comprising of the various nodes in the Hemp value chain and the relationships between them as well as the way they impose power to achieve their goals. The final level of analysis, the micro-level, will focus on the end-market and the individual actors in the value chain. Drawing on the four types of economic upgrading as defined by Ponte and Sturgeon (2014), will in large aid in evaluating the potential for capturing more value from participating in the value chain.

Chapter Four: Methods and Methodology

The aim of this research paper is to map the state of the hemp industry in Nepal and suggest upgrading possibilities for individual actors at various nodes of the global value chain while considering the legal framework which constrains or promotes certain actions. In order to gain insight into the questions at hand, this research assumes a critical realist approach and relies on a case-based, modular approach to global value chains. Our primary data collection method was in the form of interviews, which were complemented by a qualitative survey. The purpose of collecting qualitative data is to elicit specific insights into the Nepalese case and to answer the research question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework."

This section of our research paper will first propose a set of methodological assumptions, rooted in the critical realist approach. Then moving on to the case study method, we will briefly discuss the abductive exploratory research approach and then delve into the specific qualitative methods we used to obtain our data. A description of the interview process will be presented alongside the way in which the data were transcribed and coded. (see Table 3 below).

Methodological component	**Perspective**
Methodology	Critical Realism
Method	Modular Case-Based Approach
Data type	Qualitative
Data collection methods	Interviews and survey

Table 3: Overview of the methodological components

4.1 Methodology

Hughes and Sharrock (2007: 35) describe the terms 'method' and 'methodology' as two separate but related elements of a research. 'Methods' are the techniques we adopt to obtain knowledge about our object of inquiry. The 'methodology' of a research paper then defines the logic and rationale for the use of particular methods (ibid.: 36). It further presents "a principled and well-grounded position about how techniques of research are going to fit a given research topic" (Olsen, 2007: 1). The methodological approach therefore critically assesses the claims obtained through specific methods, "while methods lend credence to often more abstract assertions of a methodology" (ibid.).

All academic research is driven by a set of philosophical viewpoints, which will guide the methodological considerations of a study. To underpin the importance of the research philosophy, Saunders et al. (2009) explain that it will define the way in which the researcher considers the development of knowledge and the nature of that knowledge (ibid.: 122). This section of the research paper will unpack our methodology, which is rooted in critical realism as well as the philosophical underpinning, which define "the nature of the 'world', the individual's place in it and the range of possible relationships to that world and it's parts." (Guba and Lincoln, 1994: 107). The critical realist approach guided the whole research process, from the way we viewed the phenomena to the way we came to establish insights to guide our analysis (Eriksson & Kovalainen, 2008:15-16).

4.1.1 Critical Realism

Critical realism, in conjunction with a modular approach, is a useful tool to reduce the complexity of the world. It allows us to focus on certain aspects of the case at hand, while acknowledging that we, as researchers, can never gain a full understanding of reality (Fletcher, 2016: 182). As this research sets out to study a whole industry within a country nested in the global value chain of hemp, the possibility to 'slice' the case into smaller subsets is essential in order to grasp the complexity and present a comprehensive analysis and results.

While conducting our research, we set out to analyze social problems and suggest a solution to social change, by explaining and analyzing the forces at play in Nepal. As Fletcher (2016) argues, critical realism is well suited for such research, as it allows the researcher to gain an understanding of social phenomena, rather than focusing on detailed descriptions of contexts (ibid.: 182). In order to achieve our ambitions, we assume that there are objective structures, with real ontological grounding, completely detached from the researcher (ibid.). Guided by our theoretical framework, we have defined objective governance and power

structures within the GVC, which were independent of an individual actor's perception of them. Nonetheless, we were interested in how these structures constrain and allow actions of the across at various nodes of the GVC, as the individual's understanding of said structures will be the focal part of answering our research question.

The structure and agency question is closely linked to the ontology of critical realism, where the real nature of the world, cannot be reduced into the epistemology; the knowledge of reality (Fletcher, 2016:182). In order to gain insight into the real world, researchers must rely on observations and manifestations of certain phenomena, capturing only a subset of the deeper and vaster reality (ibid.). As briefly mentioned above, this assumption, combined with the modular approach, allowed us to divide the phenomena of inquiry into smaller and comprehensible pieces. Looking at the full network of the global hemp industry, would have been too large of a task for the scope of this paper (ibid.: 183).

Thus, from a ontological standpoint, critical realism assumes that "reality is stratified into three levels" (Fletcher 2016:183). First, the 'empirical level', which is the only level to which researchers have access and is the realm of events as we experience them (ibid.:). Only on this level can phenomena be empirically observed and measured, and subsequently explained through common sense and recognition of emergent patterns. The events observed on the empirical level will always be mediated through "the filter of human experience and interpretation" (ibid.: 184). The second, or middle level is called the 'actual level'. Here, "occurrences are often different from what is observed at the empirical level" (ibid.: 184) there is no filter of human experience and events occur independently of whether or not actors experience or interpret them. And finally, the 'real level,' at which "level causal structures, or 'causal mechanisms' exist" (ibid.: 185). These mechanisms affect objects or structures, which then cause manifestations of the deeper underlying forces on the empirical level, which we can observe and interpret (ibid.).

This means that in order to gain an understanding of the real world, we must rely on interpretations of the deeper reality, as they manifest in the empirical world. In order to make sense of the interpretations and gain knowledge about the world, critical realists utilize theories, which can be "more or less truth like" (Fletcher, 2016: 182). These theories assist the researcher in identifying "causal mechanisms driving social events, activities of phenomena" (ibid.:) by creating some sort of pre-defined hypothesis (Egholm, 2015: 85).

Based on the theories that were presented in the previous chapter of this research, we define the 'real level' as the objective power relations within the global value chain; the 'actual level' as the governance structure

of the GVC as well as the legal framework in which the value chain is embedded; and finally the 'empirical level', the manifestation of the subset of total events and actions open to our interpretation. The adaptation of a critical realist perspective brings to surface the causes and complexities of the GVC structure. This philosophical approach furthermore "acknowledges that there are social structures conditioning the possibilities for actors to make sense of social situations and to act within them" (Belfrage and Hauf, 2017: 254).

The structures constraining and allowing certain actions are thus comprised of "specific capabilities, powers, and tendencies to act in a certain way under particular conditions" (Sayer, 2000:14). This means that the way to conceptualize social structures is to see them as systems of human relations among social positions (Roberts, 2014:7). From this, the understanding of the global value chain of hemp is created. It is seen as a system of human relations that are based around the transfer of goods and articulating a shared set of values. The observable manifestations are all a result of the governance and power relations within the GVC.

The critical realist approach allows us to analyze how the governance and power structures allow for movement across the value chain, as they manifest in forms of social and economic upgrading. Saunders et al. (2009) argue that leveraging this approach will allow researchers to understand why phenomena happen and will be beneficial for recommending change (ibid.).

4.2 A Modular Case Study Approach

The case study approach was selected, as it allows us to "gain a rich understanding of the context of the research and the processes being enacted" (Saunders et al., 2009: 146). Furthermore, in line with the critical realist approach, the case study approach is used to understand how "behavior and/or processes are influenced by, and influence context" (Hartley, 2004: 323). An exploratory approach to the case was subsequently chosen as the most appropriate as it includes a thorough analysis and provides deep knowledge about the phenomena at hand (ibid.).

In academic research case studies are considered both to be a method as well as a research approach or strategy, whereas the majority of cases employ qualitative research to formulate a case, quantitative research can also be collected and applied alongside a variety of empirical data (Eriksson & Kovalainen, 2008:116). A case study approach is one, which provides the researcher many liberties, nonetheless, our rather traditional approach was conducted by collecting qualitative data, as to gain a comprehensive

understanding of the individuals' perceptions of the empirical level, which is guided by the philosophical tradition of critical realism.

Common amongst definitions of case studies is the emphasis on producing holistic data and studying the research phenomena within its contexts (Baxter & Jack 2008: 1). Yin (2009) defines case study research as an "empirical inquiry about contemporary phenomenon (e.g., a 'case'), set within its real-world context, especially when the boundaries between context and phenomena are not clearly evident" (ibid.: 18). As we have discussed in the section above, though we are studying the empirical level, the contexts from the 'actual' and 'real level form an integral part of our research and cannot be omitted in order to reach sufficient analysis.

Leveraging the case study approach was particularly useful in obtaining a deep understanding of the Nepalese hemp industry, while "developing theory by utilizing in-depth insights of empirical phenomena and their contexts" (Dubois and Gadde, 2002: 555). Case research provided the opportunity to conduct multi-layered research that, which, unlike most linear processes, allowed us to combine the framework, theory and empirical world in analyzing the issues at hand in its natural context (ibid.). Furthermore, this approach "facilitated exploration of phenomena, using a variety of data sources [ensuring] that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomena to be understood" (Baxter and Jake, 2008: 544).

Dobson (2000) proposes two distinct types of case studies, as defined by Stake (1995) the 'intrinsic case study' and the 'instrumental case study.' The former deals with a case that is ordinary and does not illustrate a particular trait or problem, whereas the latter " attempts to provide insight into an issue or refinement of theory, where the case is a secondary interest and plays a supportive role, facilitating our understanding of something else" (Dobson, 2000: 284). As this research is interested in an entire industry rather than a single company, we have chosen to primarily conduct an intrinsic case study, where we want to learn about a unique phenomenon. Nonetheless, in the discussion chapter of this paper, we will argue for the possibilities for generalization from this research, as we believe some findings can be applied to different industries or countries.

The research topic selected for our research, namely the hemp industry in Nepal, is a rather understudied area. For this reason, we have chosen an exploratory research approach, as it is a valuable way to gain insight into less researched phenomena (Saunders et al., 2009: 138). The exploratory approach helps uncover what is happening, and most importantly it allows us to ask questions and understand the

phenomena in a new light (ibid.: 139). Our goal was to gain a deep understanding of the topic, however gaining insight into an understudied field meant that we had to be prepared for a certain level of flexibility and adaptability, and open to changing direction when new data surfaced (ibid.: 139) all liberties that exploratory research allows.

The agility of the exploratory approach proved to be extremely useful, as the assumptions and initial research we departed from were molded as new data surfaced, resulting in us changing direction and considering new approaches. It also allowed us to take a rather general idea as a point of departure and then narrow down as we got deeper into the data collection phase (Saunders et al., 2009: 140).

As we collected data and narrowed our focus of the case, we were continuously confronting theory with the empirical world, which is in line with abductive research (Dubois and Gadde, 2002: 556). Dubois and Gadde (2002) explain the concept of systemic combining efforts, with the goal of matching theory and reality. Approaching our research in this way, we are able to overlap the data analysis and data collection in a manner that allowed us to analyze and conclude on our findings in a more "qualified and informed way" (ibid.).

Due to our connections in Nepal, we had knowledge about the hemp industry prior to embarking on our research journey. Nima's father who currently resides in Kathmandu helped us identify some stakeholders prior to arriving in Nepal. Once on the ground, over the time of four months, we conducted interviews with farmers, middlemen, resellers and international distributors to gain insight into the case at hand. Hartley (2004: 325) states that, in case study research, one must be thoroughly prepared for "unanticipated happenings that reveal the nature of the case" (Hartley, 2014: 326). This way it is possible for the researchers to "understand what concepts mean to people, the meanings attached to particular behaviors and how behaviors are linked" (Hartley, 2014: 326).

Prior to initiating the fieldwork and data gathering phase, we conceptualized our general theoretical framework, departing from GVC theory. Once we began gathering empirical data, we continuously consulted the theoretical framework, data sources and our analysis of the empirical level, as suggested by Dubois and Gadde (2002: 555). The abductive approach highlights the "importance of fit and reality and argues that data should not be forced to fit preconceived or preexistent categories, asserting rather that the categories are to be developed from data" (Dubois and Gade, 2002:556).

As an example of the abductive process, the legal framework became a focal point in our research, even though it was initially not considered in the conceptualization phase. We decided to include the legal framework after the first round of interviews, where this phenomenon was continuously brought up, we assessed its importance and thanks to the abductive exploratory approach, we were to able include it in our thesis. Though we had knowledge about the industry, there were many underlying factors affecting our research phenomena, which we were able to identify only after we began gathering data. The flexibility of an exploratory, abductive case study approach, allowed us certain freedoms to explore various phenomena, assess whether they play an important role in our research and in turn gained a far deeper understanding of the underlying context and forces at play (Saunders et al., 2009: 139).

Furthermore, in line with our research philosophy, we were not only interested in finding a general truth about the industry, we also wished to gain insight into how individual actors in the Nepalese hemp industry and government perceive the issue at hand, approaching the research as an exploration of the phenomena did not mean we lacked direction, rather that we were open to emerging phenomena and flexible in terms of defining a narrow field of study.

Though we took an exploratory approach to our research, our focus was still defined and guided by theory, thus even though the interview strategy was mainly unstructured interviews, where we let the informants speak about what they thought was important, we still guided the informants on the general topic. This brings us to the data collection methods will be expanded on in the following section.

4.3 Qualitative Data Collection

Taking a critical realist standpoint to research means that we, as researchers, are not only interested in explaining how we know something but also to understand what the phenomena studied is (Collier, 1994: 75). We believed that it was essential to examine the deeper causal processes at work in the Nepalese hemp industry. In order to do so, it was first essential to "explore these underlying causal powers, or causal mechanisms, of the phenomena under observation and think conceptually about how it operates" (Roberts, 2014: 6). Observing events at the empirical level, one can gather two types of data "extensive: i.e., data on widespread trends such as statistical data" (Fletcher, 2016: 185) and intensive data, which is more in-depth interpretive data collected via qualitative methods such as interviews"(ibid.: 185). Though both types of data are helpful to identify demi-regularities for further analysis. However, this research focused solely on qualitative data obtained via interview and a survey. Our goal was to obtain in-depth data that can be

compared to other known objects and "which will then be used to explain a set of observable patterns (Roberts, 2014: 6).

4.4 Interviews

Kvale (1996:1) argues that interviews are a useful data collection method where the goal is to understand the world from a subject's viewpoint, to unfold the meaning of experience and uncover the subject's lived world. As established earlier on in this chapter, gaining an understanding of the interpretations of the actors in the hemp industry was essential in conducting the research. In order to do so we drew on the seven steps of an interview process as proposed by Kvale and Brinkmann (2009): 'thematizing', 'designing', 'interviewing', 'transcribing',' analyzing', 'verifying' and 'reporting'.

Nonetheless, our methodological considerations avoid simply transferring the research method questions into research interview questions. The distinction we draw is that "research method questions focus attention on what needs to be explored and understood, whereas actual research interview questions equip a researcher with the means to gain answers to research method questions (Roberts, 2014: 7 see also Maxwell, 2012:104). This guided the conceptualization of our interview questions, so that they could give us insight into the concrete specificity and distinctive context. Furthermore, the interview questions were designed with a certain degree of flexibility in order to gather information about the unique interactions and causal mechanisms in the context of the hemp industry in Nepal (ibid.: 7)

4.4.1 Thematizing and Designing

In order to design an interview study, the 'how' of the study must be addressed in order to successfully plan the procedures and techniques to be used (Kvale and Brinkmann, 2009: 5). Kvale and Brinkmann (2009) distinguish between three different types of interviews: 'structured', 'semi-structured' and 'unstructured interviews'. The distinction is made based on the spectrum of autonomy the interviewer allows in the data-collection phase. A structured interview follows a rigorous process, where the questions posed are created, and possible answers are defined prior to the interview, and no deviation is allowed from the predefined questions (ibid.).

A semi-structured interview allows more freedom to jump between questions and introduce new concepts or probes. In this type of interview, the interviewer will jump between questions and inquire follow-ups when seeing fit. Compared to the structured interview, this approach is dependent on the interviewer to be

able to quickly analyze the answers they receive and quickly ask meaningful probing questions, in order to gain a deeper understanding of the phenomena of inquiry (ibid.).

Lastly, the unstructured interviews are rather informal, where both the interviewer and interviewee can ask questions. The interviewer does not prepare a pre-defined list of questions, rather has an idea of an area of interest (ibid.). This form of interview is more similar to a casual conversation (Roulston, 2010). It is extremely useful in research, which wishes to explore a general area of interest in substantial detail.

Upon deciding which structure of interviews to use in our research, we considered the fit in regard to our research topic. We combined all three interview types, as we were interested in interviewing a variety of different stakeholders and gain an understanding of both the objective structures as well as their subjective meaning to individuals. We conducted two pilot interviews, which were unstructured and used to gain a better understanding of the industry in Nepal. These interviews were subsequently analyzed and guided the second stage of semi-structured interviews, which leveraged an interview guide (see Appendix 1). Semi-structured interviews formed the majority of our data collection phase, as we wished to gain an understanding of specific phenomena. However, we were still open to exploring new areas, in line with our research methodology. Lastly, we created and sent out a survey, which was similar to a structured interview, where we had a rigid structure and clearly defined questions, with little to no room for open questions.

4.4.2 Interviewing

After the preparations mentioned above were made, we conducted a total of 32 interviews. First, we conducted 3 pilot interviews with one villager, one wholesaler and one international distributor. The initial unstructured interviews were used as a sort of initial exposure to the phenomena we wished to study and granted us a fairly deep understanding of the industry and its context in Nepal. They were essential in narrowing down our research topic and formed the basis for the rest of our data collection phase.

Secondly, we conducted 29 semi-structured interviews with stakeholders across the whole value chain (see Appendix 2). The semi-structured interviews formed the basis of our research as they allowed us to inquire into a specific topic, however, were still open for new ideas and concepts to emerge.

Lastly, we conducted a survey, which was similar to a structured or semi-structured, where 16 international retailers answered 24 questions. 17 of the questions were close-ended and 5 were open-ended (see Appendix 3).

During the interviewing phase in Nepal, we were confronted with certain obstacles. First, not all of the interviewees spoke fluently English. Thus, we had to rely on a translator to convey the sentiment of some informants, as well as completely facilitate conversations with informants who had no English skills. This however, proved not to be too large of an issue, as Nima is familiar with Nepalese and her father, who is a local, was often also present. This brings us to our second limitation. Initially, it was only Nima and Martina alongside the translator conducting the interviews. Due to the patriarchal structures embedded in Nepalese culture, often times we were faced with interviewing men. As we have discussed briefly in the introduction, due to the status of women in Nepal, at times the men we interviewed would be unwilling to talk to us. However, once again, we controlled for this limitation by asking Nima's father to accompany the interviews, as he is a respected man in Kathmandu and the people, we were interviewing were more willing to speak when he was present.

The last limitation we encountered, and possibly the graves one, was that due to the legal grey-zone the Nepalese hemp industry finds itself in, not all of our informants were willing to be recorded or wanted us to take notes. In order to mitigate the potential loss of information resulting in the inability to record the interviews, we learned the interview guide by heart and identified certain questions that were absolutely essential to inquire about. Right after we conducted the interview, we immediately noted down all the information that the interviewee provided us with alongside any significant observations of the context where we conducted the interview. While transcribing the information, we maintained the wording and meaning as told by the informants, bringing us to the next section, where we will further discuss the transcribing and coding methods.

4.4.3 Transcribing and Coding

As described in the methods, the primary data of this paper were semi-structured interviews. These were recorded either on our phone or in note form right after the interview. Thereafter these notes were coded according to different themes that we wished to focus on guided by the theoretical section. In line with the critical realist ontology, we began the data analysis by searching for demi-regularities and trends at the empirical level (Fletcher, 2016: 185).

After the initial data analysis and detection of trends in the data, the first round of coding was done according to the different levels of analysis described in the theoretical section of this paper. As identified in the theoretical framework there are key factors that largely affect the upgrading process on each level, namely: regulation (macro-level), governance (meso-level) and end-market (micro-level). The second round of coding further distinguished between economic upgrading and its four typologies: process, product, functional and inter-chain upgrading; and social upgrading (See Table 4).

First Round Coding	Levels of Analysis	Macro: regulation
		Meso: governance
		Micro: end market
Second Round Coding	Economic Upgrading	Process upgrading
		Product upgrading
		Functional upgrading
		Inter-chain Upgrading
	Social Upgrading	

Table 4: Coding Process

4.4.3.1 Regulation

The first of three levels of analysis considered in this research is the macro-level: regulation. While we coded our data, we paid special attention to any mentions of regulation. We considered both references to the international legal framework as well as national Nepalese law and policies. The coded data was then further separated into themes concerning the legality of hemp in general, and more specific distinction between subsidies and taxation in Nepal.

4.4.3.2 Governance

As described in the theoretical framework chapter, there are five forms of governance in a GVC: market, modular, relational, captive and hierarchy; where the three in the middle are also classified under the title

'network governance.' When coding our data, we took special note of comments that gave insight into how the current Nepalese hemp industry's GVCs are governed, and these were later coded for. Subsequently, these codes were separated according to each link of the chain, in order to identify the different governance types at play at the different levels.

4.4.3.3 End-market

The aim of this theme of coding is to give direct insight into the preferences of the consumers at the end-market, which in turn is helpful when discussing the potential different forms of upgrading. The headings for this theme was done slightly different than the others. First, we collected statistical data on the export of hemp products from the Trade and Export Promotion Centre (TEPC), which is a branch underneath the Nepalese Ministry of Industry, Commerce and Supplies. Secondly, we used this data to identify the main consumer markets by identifying the top destination markets. Thirdly, the interviews were for mentions of any of these consumer markets. Finally, when this coding had been done, we categorized the markets into clusters based on consumer preferences and retailers' practices.

It should be noted that there are potential reliability issues with the data provided by TEPC, as several informants claimed that there is widespread misreporting of export goods; even the officer who gave us access to the database made a cautionary statement. Based on the high likelihood of inaccurate figures, this paper will only use the top destination export countries to identify the main markets but will not include or rely on any figures. The assumption here is that even if all the statistical figures are inaccurate, there will be a correlation between this data and the true export patterns.

4.4.3.4 Economic Upgrading

Economic upgrading was once again guided by the types of upgrading presented in the theoretical section. The four types of upgrading we identified in the data were: process, product, functional and inter-chain upgrading. Each type of upgrading was given its own section.

Process Upgrading

In the theoretical framework chapter, process upgrading was defined as improved efficiency through the organization of production or introduction to new technologies (Humphrey and Schmitz, 2000:19). Later, the former was expanded upon with four headings which have all been included here. Hence, the interviews were coded for process upgrading according to the following five themes: new technology, transportation, consistency, sufficient supply and complying with standards.

Product Upgrading

In the theoretical framework chapter, product upgrading was defined as a more sophisticated product (Salido and Bellhouse 2016: 10). This could either be in terms of quality or functionality. During the data collection, it became clear that there were different interpretations of quality, and therefore this category has been split into two headings: materials and brand. The first refers to the physical quality of a product, whether it has the desired durability. The second refers to quality in terms of consumer preferences, such as design. Hence, the interviews were coded for product upgrading according to the following three themes: materials used, brand, and functionality.

Functional Upgrading

In the theoretical framework, functional upgrading was defined as migrating into higher value-added functions (Salido and Bellhouse, 2016: 10). This would include increasing the skill level of production, hereunder abandoning old practices and taking over upstream and downstream activities. Therefore, during the coding process it was noted every time an informant introduced an potential improvement to the supply chain that included one set of actors capturing a different part of the supply chain or abandoning old practices significantly. There were three themes that arose from these notes: farming, designing and villager empowerment.

Inter-chain Upgrading

The theoretical framework defines inter-chain upgrading as using existing skills to move into a different value chain, with immediate and final buyers in new sectors (Gereffi and Sturgeon, 2006: 18). There is a great deal of opportunity for this throughout the supply chain. The interviews were coded for mentions of other industries, and thereafter this coding was further coded to detect if this could be a complementary industry. The data was then divided into upstream and downstream actors because the skillsets of these two groups were very different; namely the upstream actors (villagers and middlemen) have skills in relation to handling hemp as a raw material, where downstream actors (manufacturers, wholesalers and foreign retailers) have skills with transforming hemp into a product that can be commercialized.

Social Upgrading

In the theoretical framework, it was explained that social upgrading would be an essential part of the analysis within this paper. The reason for this being that even if there could be economic growth achieved but it was not inclusive growth, then the intention behind the research question would not be fulfilled. Therefore, the interviews were also coded for mentions of social upgrading opportunities or efforts. These

coding themes were based on the measurable components mentioned in the theoretical framework chapter: total employment, wages, the female share of employment and labor conditions (Salido and Bellhouse, 2016: 10-11). The category 'wages' has been split into two different themes namely 'wages' and 'payment of suppliers. The reason for this being divided is that in a GVC there is both the social issue of how wages are paid by their employer, but also the payment for products between chain links; i.e. the transaction between suppliers and buyers. The price of a product may have a direct effect on the wages paid, nonetheless, we felt that it would be best to distinguish between these two themes. Hence, the interviews were coded for social upgrading according to the following themes: total employment, wages, payment of suppliers, female share of employment, labor conditions and labor rights.

4.4.4 Data analysis Through Abduction

After the main demi-regularities and trends were identified through coding, the process of abduction- also known as theoretical redescription- began. During this time the empirical data was re-described using theoretical concepts." Abduction raises the level of theoretical engagement beyond thick description of the empirical entities, but with the acknowledgment that the chosen theory is fallible" (Fletcher, 2016: 185). The data analysis will be presented in more detail in the following chapter.

4.4.5 Verifying Data

Qualitative research is based on subjective, interpretative and contextual data, which makes the findings susceptive to scrutinization and questioning. It is therefore imperative to ensure that the data collection can be used to produce a believable, consistent and credible analysis, which is useful for readers and other researchers (Kvale and Brinkmann, 2009: 244). Therefore, the verification stage refers to evaluation the validity and reliability of our data. It is important to address these two issues and their implications for a study.

The validity of a study is defined as "the degree to which a method investigates what it is intended to investigate" (Kvale and Brinkmann, 2009: 282). Whereas the reliability refers to "the trustworthiness of research findings [..] and whether the finding is reproducible at other times and by other researchers" (ibid.: 281). We have encountered certain factors throughout the research process, which have an effect on both these issues. As most of the data gathering was done in a developing country, interviewing poor farmers and people from all social stratas, we have had to take certain considerations into account. In order to ensure that our research is contributing to the field of GVC analysis and the hemp industry in Nepal, we conducted

our research with certain precautions in mind. This following section will discuss the actions that were taken with the aim to decrease such concerns and account for potential methodological shortcomings.

4.4.5.1 Reliability

The reliability (also referred to as 'dependability') refers to the consistency in which the results of a study could be repeated and result in similar findings. Due to the fact that qualitative research is often conducted in specific contexts and settings, it is imperative the researcher documents all aspects of the study and documents all unexpected occurrences (Cresswell, 2014: 2001). During our field research in Nepal, we noted down not only the data gathered from interviews, but also the contexts our informants were a part of.

Furthermore, specific attention was paid to the manner in which we recorded our interviews and actions. Due to the fact that the interviews were not recorded, we noted down the content of the interviews with as much precision as possible and also noted our observations about the informants, whether certain topics made them uncomfortable or the manner in which they communicated the information. All of this data was recorded consistently throughout the whole data collection process (Riege, 2003:79). In order to ensure consistency, we followed the same interview guide and had a rigid coding schema. We created a clear coding schema, where the meaning of the specific coding categories was clearly defined after extensive consultation with the theory. We compared the data and the codes and coordinated all communication regarding the documentation of data so that no meaning was lost and that important themes were identified.

4.4.5.2 Validity

It is possible to distinguish between internal and external validity. Internal validity (also referred to as 'credibility') dictates the trustworthiness of the findings. Data triangulation is often used to compare data from various sources and ensures that information is considered from multiple perspectives. We employed data triangulation by comparing all the data from interviews to quantitative data from statistical website and official government databases. External validity on the other hand questions the degree to which the findings could be transferred to other contexts. This means that the results would be generalizable and applying them to similar settings would yield similar results (Cresswell, 2014: 202).

In order to gather a 'credible' and 'representative' sample of the industry, we conducted 29 interviews, with actors from all different levels of the value chain. We subsequently compared the information provided to us and searched for commonalities. We were on high alert for information, which were contradictory. If two informants provided us with two different opinions on a subject, we noted it down and accounted for it in our data analysis. Nonetheless, the sample size was so large that most of the information provided

proved to be concurrent with each other. Another strategy we leveraged was to ask follow-up questions in the case that the informant was unclear or stated something, which was completely out of line of what everyone else responded. This way we tried to mitigate any miscommunication due to the language barriers. We employed a translator from the local university, who had studied in Canada, we also asked Nima's father who lived abroad in the United Kingdom and Denmark for several years to help us verify our interpretations.

Furthermore, the fact that we were conducting research in a foreign context, we had to account for a certain degree of bias during our research (Cresswell, 2014: 202). Our background and thus the initial premise we investigated the data through from a Western context, where law forms rigid structures and a high level of compliance among the population. This reflects in part the degree of education and access to information about laws and regulations. Our pre-conceptions were quickly shattered, as we began to understand the completely different context, we became a part of. In order to achieve as much objectivity as possible, we consulted our findings with Nima's family, who are all local Nepalese people living in Kathmandu. The purpose of this was to ensure we are understanding the information the way it was intended by the Nepalese informants, rather than imposing our own subjective view on the data. We have developed a deep understanding of the phenomena under study over a course of four months, which resulted in analyzing the data through an experienced and accurate understanding of the phenomena.

Regarding the generalizability of our case study, we took a modular approach to the Nepalese context, which sought to understand the specific phenomena in its historically- and geographically-specific context. The ambition to generalize our findings was was thus a secondary concern. Parts of the research, discussing the power between international law affecting the legal framework of a developing country can be applied to other contexts. However, any findings that were inherent to the Nepalese industry and its specific context would be hard to apply in a different setting. Nepal is a least developed landlocked, mountaneous country, with a weak government and the object of study was a plant, which is under local legislation banned. This research was thus inherently context-specific, dealing with a very niche problem. However, some theoretical generalizations will be made in the discussion.

4.4.6 Reporting

When reporting on the interview, one must consider the ethics of the research (Kvale and Brinkmann 2005: 272). In our research specifically, due to the illegal nature of hemp, our 29 informants wished to remain anonymous. In the data analysis section, there will not be a introduction to each individual but instead there

will be made references to their position. The significance of the informant's position is largely to understand where within the GVC the person is situated, as well as to generally contextualize their input.

The following chapter will present our initial findings and map the Nepalese hemp industry based on the data collected during our field-research, conducted over a course of four months in Nepal. The data will be presented based on our coding scheme. First, we will discuss the three levels of analysis: regulation, governance and end-market. Secondly, we will identify economic upgrading potential. Lastly, we will present our findings on social upgrading.

Chapter Five: Data Analysis

The following chapter will present our findings as to answer the research question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework."

The research question is twofold. First, it is concerned with the current state of the hemp industry in Nepal. Secondly, it seeks to investigate how Nepal can leverage its hemp industry to capture larger value from the global value chain (GVC), while considering the current legal framework.

This chapter will present our findings, which are directly linked to the first part of our research question, in order to understand the current state of the hemp industry in Nepal. We will map the industry, by presenting the data, which was provided by our informants, alongside relevant contextual figures. The purpose is to gain a thorough understanding of the current practices, barriers and strengths of the industry. Gaining an overview of an entire industry is a cumbersome task, and here we will operationalize our modular approach and focus on smaller subsets of the GVC (Fletcher, 2016: 182). The analysis chapter will be divided into three overarching sections: analysis of industry, opportunities for economic upgrading, and reflections on social upgrading.

The first section, 'industry analysis', will take the three scalar dimensional modular approached previously introduced in the theoretical framework; i.e. macro, meso and micro perspectives. The macro perspective will consider the institutional regulation of hemp. The meso perspective will identify the GVC governance and power structures present. The micro perspective will consider the end-market, and the consumers that dictate demand. The second section, 'economic upgrading', will discuss the potential opportunities for upgrading as defined by (Gereffi et al., 2005: 83). Namely, process, product, functional and inter-chain upgrading will be presented in relation to our data. The third section, 'social upgrading', will address the issues that must be considered in order to secure inclusive growth in society.

Each of these sections will present a short summary of our findings, that provides an overview of the key findings. By the end of this chapter, the reader will have an understanding of the current state of the hemp industry in Nepal, which will then be further contextualized in Chapter Six of this research project, as to discuss how Nepal can capture larger value from the global value chain.

5.1 The hemp market from different levels of analysis

This section will present our findings on the three levels of analysis. First, the macro-level (regulation) will discuss the legality of hemp, the subsidies and support of the industry as well as the taxation of the product.

5.1.1 Macro-level: Regulation

The following section will first discuss the legality of hemp; second, the subsidizing of the industry; and third, the taxation, which reflect the current attitude of the government towards the cannabis industry.

5.1.1.1 Legality of hemp

The national and international legal frameworks have already been presented in this paper. Nevertheless, it is worth investigating how these policies are implemented in practice and whether actors in the GVC are aware of the existing legislation. Several informants did have an understanding of the illegality, though it was not a direct concern to their business, as seen in the quote below:

> "It's illegal to grow, even on your own property, but I have never heard of people getting in trouble for selling. I don't think the Nepalese government would have time to regulate it. They are already so busy with many other things.[...] The police are not so strict with it here. If they feel like arresting you they will, if not they will leave you alone. Not like in Europe where, if it's illegal, you don't do it."
>
> Manufacturer 10

It seems that the implementation of the legislation is quite weak, and this was reinforced throughout many of the interviews. Given the weak governance of Nepal, it is perhaps not a surprise that the de facto reality is quite distant from the de jure reality. The informant specifically mentions time and priority as factors that would cause the government (or police service) to neglect the enforcement of laws surrounding cannabis related products. This is in a context where all sales of cannabis or related products is outlawed (Dhami and Neupane, 2014: 250). Despite the general lack of concern with the authorities, there were some informants who were taking precautions to avoid experience:

> "There are no labels are put on any of our hemp products due to the illegality. We have labels on all other products."
>
> Seed wholesaler

This informant was marketing the company's hemp products through word of mouth and was happy to provide information to customers about the health benefits of eating hemp seeds on pamphlets. Nevertheless, out of fear of prosecution none of the of the containers with hemp seeds had any label on it. The general packaging and brand were identical to containers with other plants and herbs, including illustrations and instructions. This seems to be in complete contrast to the textile industry, where most clothes items would be labelled with '100% Nepalese Hemp' and 'THC FREE'. The latter was particularly prevalent on almost every bag, backpack and accessory made of hemp textiles. There could seem to be a difference in the type of hemp product on sale; seeds for food vs. textile. It could be speculated that the consumption of the hemp seeds made it more vulnerable to regulation. This was a difficult hypothesis to investigate, as the abovementioned seed wholesaler is one of the only established, formalized companies in Nepal to sell hemp seeds. In his own words: "*We have no competition! We are the only ones in Nepal selling superfoods, and health products like this.*" It seemed challenging to compare an industry as proliferated as the textile with a nascent industry such as the food seed. However, there are some other actors in the country who sell food seeds, and these are local villagers who bring the seeds from the countryside to the cities. As previously established, hemp seeds are a traditional ingredient in Nepalese households. We conducted an observatory field visit to a local fruits and vegetable market, which is organized by the Ministry of Agriculture and Livestock Development. Here, we found hemp seeds sold alongside other produce, with no reported concerns from the individual sellers about the legality. It should be noted that these sellers in most cases gather the crops themselves in their villages. Given that cultivation and harvesting are illegal actions, there are two factors that may lead to their lax attitude: (1) they are unaware of the legislation, and (2) there is no illegality de facto. Of course, these possibilities are not mutually exclusive. There is a high chance that these market sellers are unaware of the existence of regulation due to their relatively low levels of education. It also seems likely that there is no enforcement of the legislation, based on the fact that the seeds can be sold at a market organized by the Ministry of Agriculture and Livestock Development. However, there was one specific form of enforcement that the government does practice:

"Kathmandu police are cutting down the plants. There are hundreds of officers down by Chitwan. The locals are saying that it won't matter, the wind will take the seed and carry them away and re-pollinate."

Middleman

Reportedly, the government spends resources sending police officers around the country to cut down the plants. Keep in mind, that this is a plant nicknamed 'weed' due to its rampant proliferation, and it is indigenous to the region. Another informant, a villager living in a mountain village with cannabis plants growing unintentionally on his property, confirms this story:

"The district police come and cut down all the plants once a year. They go to every village and pile them. They bring 3-5 liters of gasoline to burn them with, which isn't nearly enough. The rest is left behind."

Villager

Contrary to the previous data, these actions imply that regulating cannabis is at some level a priority for the government. These contrasting signals creates an unclear understanding of what the intention is with the current legislation. When a government official was asked to explain the reasoning behind the cannabis regulation, the informant offered the following answer:

"The cultivation of any cannabis is totally banned. This is because of the Anti-Narcotic Convention [UN Convention against Illicit Drugs 1961]. Nepal signed this convention in 1982, and therefore we cannot promote any hemp cultivation."

Trade and Export Promotion Centre

These facts are not new information, and as introduced previously, this does not take into account that cannabis from industrial purposes is exempt from the UN convention (UNODC, 1961: Article 28.2). It is worth noting the importance that international legislation plays in this domestic context. Further, a different informant had a more descriptive version of the background of the regulation:

"Hemp became illegal around the time that Nepal opened up for tourists. Pressure from US, UK, etc.; because of the laws in their countries and the hippy trail, everyone just came here to get high."

Manufacturer 12

This narrative further supports the assumption that the government of Nepal has been largely pressured by foreign nations to adopt international law and implement it domestically. If this legislation truly has been a compromise or agreement urged by foreign states, it could be the case that there is a lack of motivation within the Nepalese government to thoroughly enforce the regulation. This could explain the efforts by the police which are either: (1) inconsistent, in the sense that there is no enforcement in some areas but drastic enforcement in others; or (2) weakly enforced, if the case is that there are only resources to target the plants and not the products, and a prioritization has been made.

In summary, the fact that cannabis production is illegal in Nepal is known to some actors in the hemp industry, but not all. This is likely partly due to the fact that there is little to no enforcement of the policy.

Once a year, the police do travel between villages where they cut down all cannabis plants that they can find and burn as much as possible. Keeping in mind that the plant is indigenous and proliferated, this is widely considered efforts with limited impact. Products advertising their content of cannabis are sold in various venues, including ones operated by the government. Finally, the national legislation does seem to be based on international politics rather than domestic. Overall, despite the illegality, the industry is de facto unregulated, with a general understanding from the actors in the GVC that they do not have to worry about prosecution. However, the targeting of plants makes it difficult to create organized farms or industrial scale harvesting; which could explain why the majority of the industry depends on village gatherers rather than farmers.

5.1.1.2 Subsidies and Support

This theme is labelled 'subsidies and support'. It would be expected that subsidies are a local matter, however due to the heavy reliance on foreign aid 'support' was added to provide a more nuanced view on Nepal's position. Foreign aid may come through foreign governments or independent organizations; regardless, these sources of financial support have influenced all sectors in Nepal for decades and therefore should be considered as a regulatory factor. Further, a significant part of this foreign aid has political connections and the Nepalese government plays an active role in how finances are distributed (Bhattarai, 2007).

Throughout the data collection period, there were rumors that the government was subsidizing the hemp industry, despite the fact that it is illegal. This reportedly happened at the lower levels of the GVC, such as the villagers who collected the plant and spun the yarn. Reportedly, this would happen through development schemes where the government would attempt to support livelihoods. We sought to understand if and how the government could create monetary incentives for citizens to engage in illegal behavior. One informant offered the following explanation:

> "Women groups are making the hemp yarn, with support from the government. Not necessarily supporting hemp, but they support the formation of the women groups who can choose what they want to do."
>
> Manufacturer 13

The 'women groups' referred to here typically consist of women from rural Nepal who live in very small villages. The Trade and Export Promotion Centre established within the Ministry of Industry, Commerce and Supplies expanded on who exactly these women were:

"Housewives in rural areas use leisure times spinning in their homes. Their men are migrating to Arabia and Malaysia for work, and the women are left alone with their kids. Many use their spare time to create yarn. This creates an extra income for the family."

Trade and Export Promotion Centre

This specifies that there is a focus on actors in the secondary sector and not the primary, as it was concluded previously that the activities surrounding the collection of cannabis was the most targeted by regulation. Thus, it seems that the Nepalese government targets the cultivation of cannabis, while supporting the processing of the plant. This leaves an obvious dilemma regarding which actors are supposed to be collecting the plant. This informant provides insight into how the hemp that he used was sourced:

"Forestry collecting and growing hemp; but there are just one or two fields per family. Not a lot."

Manufacturer 13

This quote reminds us of the difficulty in creating any large-scale production, due to the enforcement of cannabis legislation. Reportedly, most villagers engaging in the GVC are prone to remain forest collectors of hemp rather than attempting to create organized farms from the crop, presumably due to the bad reputation or illegality. Therefore, the question once more turns to why the government is blocking the practical organization of growing the crop whilst simultaneously offering support to actors using it to produce yarn. Below, the informant from the government clarifies where the distinction is made from their perspective:

"The International Labor Organization supports it because they only use the bark [...] There are Community Forest User Groups that are related to collecting of non-timber products. They are allowed to collect fibers and are supported [by the government] as micro-enterprises. There is regular investment in helping projects, e.g. buying machines and training [...] The government is investing in training, promotion activities, market exhibitions, facilitating meetings with exporters and importers."

Trade and Export Promotion Centre

Notably, the International Labor Organization (ILO) was used as a reference in the explanation of why these practices could be support. Once again signaling the strong ties between the Nepalese government and the international community. This quote explains the rationale that hemp collection for textiles is categorized as a non-timber product due to the fact that only the stem of the plant is used. Further, it states

that support is being issued through machines, training and network. This implies real efforts are being made to promote Nepalese hemp products to both domestic and international markets, which in turn must mean there is an interest in doing so. Given the avenues through which this support is coming from, it seems to be an effort to increase the income for rural, low-income families; and create more prosperous conditions through trade. It is noteworthy that for many people in Nepal INGOs (International Non-governmental Organizations) are viewed quite differently from local NGOs (Non-governmental Organizations). As referred in the background chapter, these organizations have for many years yielded a great deal of power in the country, and, therefore, they have quite a distinct reputation. This was evident in the interview below:

"INGOs help a little bit, but I don't trust them. I never trust them. They are so bad. They help a little, take pictures, take video, make people look needy, say 'Oh look we help', send it home and then they take the rest of the money. They take so much money for themselves. But people in other countries want to help! They give INGOs money, but they don't give it to people in Nepal. The manager and accountants take all the money. INGOs and government can give help, but not to me. I do not trust. They have a different master plan."

Manufacturer 4

This illustrates that there is local reluctance to accept the support that is offered both by the government and INGOs. The informant speaking here is a textile manufacturer and therefore further up in the GVC than the beneficiaries discussed above in the women's groups. This difference in status perhaps allows this actor to be more critical in regard to the income and support he accepts. Rejecting assistance in this case seemed to be a case of ideological disagreement and a disgruntlement with being viewed as charity case. However, the government is also offering support in other forms than developmental assistance. In 2017 there was a change in legislation that was aimed at supporting the agricultural sector, which is the key employer of the country. Although there is no direct link between this political decision and the cannabis industry, it could be a supportive change towards any actors attempting to grow their business in the industry. The informant below describes the scheme:

"All banks must provide 5% of their annuals loans to the agricultural sector at 5% interest; this is half of the normal commercial rate. Government is rolling out banks to all regions."

Head of NGO

Given that this scheme is aimed at the agricultural sector, the beneficiaries of it will be the actors working in the primary sector. The expectation is that there will be more economic activity aimed at the rural areas

of Nepal and boost the standard of living through businesses such as farms. Of course, these new efforts will have little to no effect on the hemp industry due to legal barriers of establishing a farm.

To summarize, there is support to be found for actors engaging with the hemp industry in Nepal; especially for actors engaging in the production of materials from the plant. This support comes from both the government and non-profit sector. Many of the individuals who create rudimentary products from the plant are the same individuals who collect them; this is due to the informal processes surrounding the collecting of hemp plants, and so individuals, such as rural women, gather cannabis from small plots of land or in the forest and create items such as yarn. Therefore, there is at times no separation between the activities in the beginning of the supply chain, in terms of the individuals performing them. However, for the actors who only engage in the collection of the plants, they are in an unfortunate position where there is little to no support to be found. In all likelihood, this corresponds to the lowest levels of communities who do not have access to spinning equipment. It seems that the response to this has been to train these individuals and provide equipment; which the current support schemes attempt to address. Here is an example of the government attempting to upgrade the actors within the GVC, so that they can engage in more value-adding activities. Nevertheless, in those communities that are not fortunate enough to be beneficiaries of these schemes, it is a probability that the lowest members of the community are being affected the most by the legislation surrounding cannabis. In terms of actors who are purely gatherers, there is no possibility for them to expand the scale of their activities within legal practices. The only path to increase income would be to expand the scope of activities by e.g. creating yarn.

5.1.1.3 Taxation

Despite the fact that the cultivation and sales of hemp is illegal in Nepal, the local government has still created taxation policies for the product as a raw material. We visited the Nepalese Trade and Export Promotion Centre in Kathmandu that holds the statistics on export; and were informed that the government only collects data on exported raw hemp, hemp fabric and hemp yarn. This means that there is no statistics on any products made of hemp. The figures that do exist are based on the individuals' own custom forms, and according to the official who shared the data: "*Sometimes there can be under evaluations, but these are the official figures*". This brings some speculation into how reliable this data is, and was brought further into scrutiny during some interviews:

> "People are definitely underreporting/misreporting at customs to avoid paying taxes."
>
> Manufacturer 12

Given that Nepal is the fifth most corrupt country in South Asia (Transparency International, 2018), there is a natural distrust towards the government and, there is general weak governance and interference by the state. Therefore, the culture and tradition of paying taxes is not strong and there is little to-none goodwill from the business community towards the government (Askvik et. al., 2011). During an interview, when asked about exporting practices, an informant casually described the way in which he evaded taxes:

"When exporting you have to make 2 bills, one for VAT and one for the customer. You write a lower price on the VAT bill, so they don't put so much taxes on them, and a higher price to customer; this one you have to hide and don't show anyone. It's better to do B2B because other companies they understand why you do this. The government doesn't understand. They just want money for their own pockets. Maybe it's like this everywhere."

Manufacturer 4

It was unexpected that we would get such a detailed confession of tax evasion practices, though this technique of course does not affect the statistics on the quantity of hemp being exported. There were some informants who claimed that some label hemp for export as cotton, as it has a smaller tax rate per kilo, in turn creating issues with the export figures. However, it is not just the local culture that dictates tax evasion, there are many foreign opportunists who circumvent official channels as well. Here is an example in an interview with a foreign exporter:

*"*Sometimes I bring the product in my luggage. I smuggle it.*"*

Foreign Retailer 2

In conclusion, the data collection with regard to the regulation of the hemp industry in form of export taxation shows that, much like the legislation surrounding cannabis, it exists but does not operate efficiently in practice. Based on the interviews, it is possible to conclude that there is an industry-wide tendency towards tax evasion either in the form of underreporting, mislabeling or avoiding customs altogether. These practices are all significant to the analysis of the GVCs operating in the country, because it gives insight into the lack of formalized institutions in the country. It also creates opportunities for foreign companies to piggyback on the existing behavior and benefit from the pre-existing tax evading practices.

5.1.2 Meso-level: Governance

GVC analysis defines five distinct forms of governance across a value chain: 'market', 'modular', 'relational', 'captive' and 'hierarchy'. The following section will discuss our findings on the relations at each node of the value chain and discuss the governance structure of these links. This will be evaluated based on the three factors that determine the governance type as defined in the theoretical framework, namely: (1) the complexity of the information being transferred; (2) the codifiability of the knowledge; and (3) the capabilities of suppliers. In order to consider the power dynamics of a single supply chain this subsection will analyze the chain for textile products specifically, as these are the most commonly exported goods. The actors in this chain that have been identified are as follows: villagers, middlemen, manufacturers and wholesalers, and international retailers.

5.1.2.1 Villagers - Middlemen

In this subsection, we present the data that provides insight on how the villagers who gather and do initial treatment to the fibers operate. These activities have been included within one heading due to the fact that many villagers engage in both the collection of cannabis plants and initial processing. This could include stripping the stems of the plants into strings of fiber and spinning it into yarn. The data will be compared to the three theoretical factors that identify market governance. First, the villagers provide hemp yarn made on spinners, and the only point of contact that they have is with the link above, namely the 'middlemen'. The middlemen are the actors who travel to villages, buy the hemp, and transport it back to the cities where products are manufactured in factories. One informant stated the following about the middlemen:

> "There are so many middlemen, and they all take a cut. Most hemp comes to Kathmandu, and the villages have no idea what the prices are. Collectives could hire someone to keep track of prices and buy communal machines (e.g. for spinning). This would add value locally. I think all the middlemen should be cut out! People are earning so much while doing so little."
>
> Manufacturer 12

It is clear through interviews that the villagers are low-income households that use the sales of hemp to subsidize their income, in many cases to feed their family. This put the villagers in a vulnerable bargaining position and they become incredibly reliant on the middle-men. The relation between these two actors can be equated to the dyadic and direct 'bargaining power' as discussed in the theoretical section. This means that one group, in this instance the villagers, are at a disadvantage to a more powerful entity, in this case the middle men. Due to the fact that the middle men hold the gates to the distribution network, the villagers

fully rely on the middle men to move their product and have a very small degree of influence over the prices at which they sell their products.

Further, the capabilities of the supply-base is generally low and the products created at this stage are rudimentary. The transactions at this level are codifiable**,** but complex. The complexity here lies in the need for special equipment to spin the yarn which individual families must invest in in order to engage with the GVC. This leads to the conclusion that this linkage is governed by captive mechanisms. The villagers are captive to the middlemen after having made an investment in hand-spinners; which is a high investment relative to the disposable income of this group of actors. This also leads to the categorization of villagers as captive suppliers as they are driven by the need to receive a return on their investment, and are dependent on the middlemen to gain market access (Gereffi et al., 2005: 86).

Historically, this would not necessarily have been the case as villagers would have known how to weave the yarn into fabric. This traditional practice meant that spinners were not dedicated to the middlemen's needs, but rather selling parts of the yarn could have been a supplementary income with low risk and low investment. However, the knowledge of how to weave yarn into fabric is no longer present at village level at this stage in time. This is largely due to the tradition of using hemp textile has been removed from rural areas, as described by one informant:

"Villagers no longer appreciate/need the fabric, because of the cheap clothes coming in from abroad. Why would they go out, pick the plants, spin it, weave it, sew it and go through all of that trouble and hard work, for a rough, itchy material, when they can buy a t-shirt where it says "Carlsberg" for 50 RPS or for free? And then they look like a westerner. Communities still collect and process *aloo* [nettles] for ceremonial purposes such as births and deaths, but not hemp."

Manufacturer 12

This loss of tradition has contributed to the dependency of villagers on the buyers. If they still had use for it in their local communities or retained the knowledge on how to weave the yarn, they could have had alternatives to selling to middlemen or been in a better bargaining position. Currently, however, they are spending a great deal of time conducting the tedious process of spinning, which they prioritize over other tasks due to the opportunity of an additional income source. If the industry disappeared, they would not continue to spin yarn for any other purpose, and thereby it is clear that these villagers currently are captive and dependent to their buyers.

There are also cases of villagers who cannot afford spinners and are simply foraging the plant. These actors typically do not have access to or ownership of much land, and therefore venture further into forests to gather the crop. In terms of time, this is a more costly process for these lowest-income families. Nevertheless, they have not committed any long-term investment in the industry and therefore might be considered separately from the spinners. They could be classified as commodity suppliers, as they are not integrated with the rest of the supply chain, but nonetheless offer the same, standard products in the form of raw hemp. Naturally, this also means that these actors capture less value than the spinners, as there is considerable added value in the spinning process.

To summarize, the majority of village families in the GVC partake in both the gathering and spinning of hemp. Given the relatively large investment in spinning equipment with the sole purpose of selling the product to the middlemen, this linkage is considered governed by captive mechanisms. The villagers are completely reliant on the buyers and are not in the position to bargain over price. Coincidentally, due to poor rural information technology, many suppliers are also unable to gather insights into the real worth of their product. Notably, there are also actors who only partake in the collecting on hemp fibers, which also fall under the same captive mechanisms, rendering them commodity suppliers proper. In some sense, the actors would lose less than the captive suppliers if the industry disappeared; though it should be noted that in all likelihood they would be forced to find another income source to sustain their livelihood; i.e. they may not have invested in the GVC, but they are currently dependent on it. For all actors that fall under the villager categorization the power lies with the buyer, aka. the middlemen.

5.1.2.2Middlemen - Manufacturers

The trend in the industry seems to be that most manufacturers source their hemp through a single middle-man, as described by this informant:

> "The villages liaise between the cities through local 'collectors' who physically transport the hemp to the city and negotiate prices and quantities."
>
> Foreign Retailer 9

This hemp is typically in the form of yarn and is physically transported by trucks that the transporters drive through difficult, mountainous terrain with low quality infrastructure. There was no informant that indicated that they would consider switching to a different transporter in the case that their current one could not live

up to expectations. Here is an example of an informant who experiences inconsistency in supply, but stated that they would not consider changing to another:

"We have been working with the same supplier from the start [9 years]. We coordinate on the phone. Sometime it's hard to find the supplier - I don't know why."

Manufacturer 3

Generally, the supplier relationships seem to be based on personal relationships and loyalty. There were even informants who stated that it would be cheaper to go directly to the villagers but opted to stay with the same supplier. When probed there was little insight into what drove or fostered these relationships other than the fact that most had been using the same one from the start. In fact, many manufacturers had experienced the middlemen approaching them and thus had begun the cooperation. This type of power symmetry could sound like a relational governance structure. However, this should be tested against the three governance factors. When considering the role of transporters picking up hemp fibers in villages and driving them to larger cities, the transactions they handle are not complex and easily codifiable. Regarding suppliers there seemed to be many capable options available that all offer a similar service. Given these factors it seems clear that the governance type present between middlemen and manufacturers is *market*. Nevertheless, it is worth noting the cultural impact of how long-lasting, personal relationships can alter the traditional economic characteristics of a buyer-supplier relationships.

In conclusion, the governance present in between middlemen and manufacturers is a market-based one. The middlemen are commodity suppliers, who would easily be able to move into a different industry and begin transporting another commodity without any lost sunk costs. This relatively risk-free position is also reflected in the first informant's testimony that the middlemen are able to negotiate prices and quantities; this applies to both the supply and demand side. Further, the role of personal relationships and trust is a notable characteristic of the market.

5.1.2.3 Manufacturers - Wholesalers

After the hemp yarn has arrived to the cities it needs to be weaved into fabric and sewn into products. This usually happens in small to medium sized factories on the outskirts of the larger cities with anywhere between six to sixty workers. The smaller factories may outsource the weaving of the yarn to larger factories. In general, at this link, we see a lot of actors taking on several roles, where most manufacturers also act as wholesalers and local retailers. For the simplicity of this paper, local retailers will not be considered based on the logic that if the product is sold within the country then it is not a global value chain.

It is worth noting that despite the fact that most have integrated all activities under one owner, there are still a few actors that only operate within manufacturing or wholesaling.

One manufacturer/wholesaler describes his business that now consists of both a factory and a storefront in the middle of Kathmandu:

> "We produce products in our own factory in Budhanilkantha. Factory has 56 employees; 35 are sewing. An assembly line setup. Example: 1 cuts the pattern, 1 sews one piece, 1 sews the next piece [...] The shop was opened 20 years ago and have been selling hemp products for 13; before it was just pure cotton."
>
> Manufacturer 4

In this case, the informant was first a wholesaler who then later integrated the manufacturing of items into his own company. This seems to be a trend throughout the industry, as we could identify year long gaps between the date wholesalers stated that they began selling hemp in their stores, with when they began producing the products. Perhaps once a product had been tested to perform well in the market, wholesalers saw the opportunity to secure more value and therefore integrated the lower level of the supply chain. One wholesaler who is in the process of establishing her own manufacturing unit noted:

> "People are too focused on a "quick buck". They don't think about quality."
>
> Oil Manufacturer

This quote speaks to the frustration and difficulties wholesalers were having with low quality assurance when working with external manufacturers. In line with GVC theory, it seemed that wholesalers found it difficult to find competent suppliers, perhaps due to the complexity and specifications of the products, and therefore decided to bring the factories in-house. This seems to have been some drastic changes as wholesalers changed a link that was governed by market practices, transformed into a hierarchy.

In conclusion, today factory owners are the same people who own the stores on the high streets selling hemp products and they have integrated all levels of the exporting process. This means that the link between manufacturers and wholesalers are now governed through a hierarchy; as they have merged into a single actor.

5.1.2.4 Wholesalers - Foreign Retailers

Foreign retailers are defined as actors who buy Nepalese hemp products and sell them to markets abroad; in most cases these are small and medium-sized businesses. They are the last link the supply chain that sells directly to consumers.

> "I mostly export to US, Australia, Japan, Europe. Either people come once a year and place and order. Or they come twice a year (October and April - high season) and they place bi-annual. One Nepalese guy in US (been there for 25 years) sells wholesale places orders every 2 months. The Swiss guy orders for a shipment and a second half two months later. This is a good way to guarantee quality. It gives us time to produce an order properly."
>
> Manufacturer 11

The explanation of how foreign retailers place orders a few times a year indicates that the wholesalers are likely commodity suppliers, considering that they do not integrate closely with the buyers' companies but rather produce standardized products.

> *Would you ever consider switching supplier?*
>
> "I doubt that I would because I am committed to this group of producers, not just to the content."
>
> Foreign Retailer 16

Here, it becomes apparent that beyond profit-driven relationships, there is also an aspect of loyalty within buyer-supplier relationships. This specific informant brands itself on Fair Trade products and emphasizes the employment conditions that they ensure is present in their supply chain throughout their marketing. The majority of survey respondents stated that they would be willing to switch suppliers, but the presence of some loyalty-driven relationships at this stage should be noted.

In conclusion, the link between the wholesaler and foreign retailers has market governance. This is seen as the wholesalers are commodity suppliers and that there is typically no close collaboration between the actors. Nevertheless, as the popularity of hemp products grow and the market is becoming more mature, it seems that some foreign retailers are moving towards a modular governed partnership. This is seen through the way the retailers are placing regular, sizable orders and making requests that require specific machinery, e.g. natural dyes.

5.1.2.5 Summary of Findings: Meso-level Governance

After carefully analyzing our findings, there seems to be several governance types present throughout the various nodes of the Nepalese hemp GVC. As mentioned briefly, the majority of previous literature in the GVC literature has been customarily developed under the assumption that there usually exists have been led by a lead firm. When considering a specific product in the hemp industry, e.g. the hemp textile backpack, there does not seem to be any such lead firm present; rather there are many suppliers creating generic products that are purchased by countless buyers that export the products to foreign markets.

It is worth noting that:

1. The supply chain is becoming more closely integrated than it has been in the past. This is seen through the merging of the roles of manufacturer and wholesaler, as well as the early trend of foreign retailers moving towards modular rather than market governed suppliers.
2. The aspect of loyalty and relationships is a significant factor in the Nepalese context; also, for those foreign retailers who are only dealing with a single actor (wholesaler).

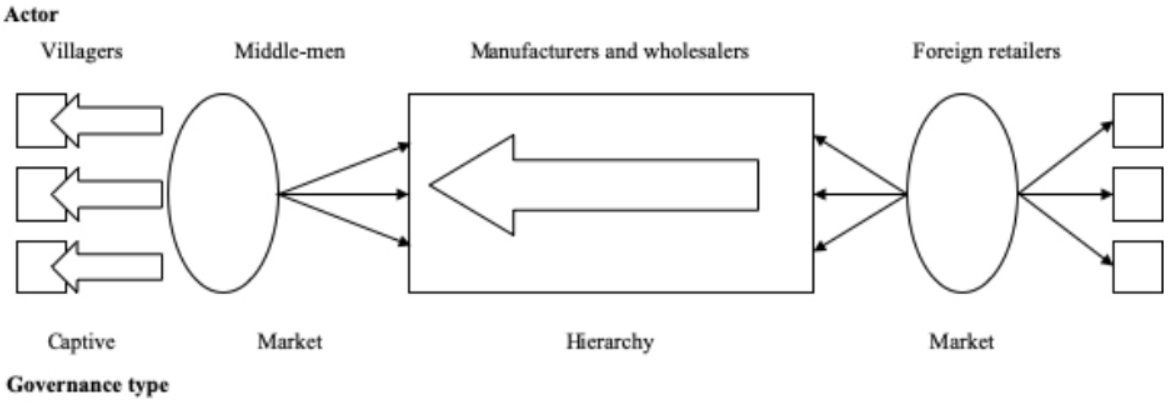

Figure 2: The transfer of power across governance structure of GVC

5.1.3 Micro-level: End-market

The following section will explore the end-markets of the hemp industry, to understand the consumers that drive the GVC. Due to the reliability issues of this data, it will be used for indicative purposes to identify the main export markets but without considering the reported size of exports. Table 5 summarizes the top 10 customer markets in alphabetical order, based on Nepalese fiscal years that run from July-July:

2014-2015	2015-2016	2016-2017
Australia	Finland	Canada
Chile	Germany	France
Finland	Israel	Israel
France	Japan	Italy
Italy	Spain	Japan
Japan	Slovenia	Netherlands
South Korea	South Korea	Switzerland
United Kingdom	United Kingdom	United Kingdom
N/A	United States of America	United States of America

Table 5: Top 10 customer markets

This list of countries defined what interview snippets were included in the analysis. It is worth noting that above mentioned countries correspond with the countries named by wholesalers in interviews, with the exceptions of Chile, Slovenia and South Korea that were not mentioned at all, and China that was mentioned quite frequently. Based on the amount of qualitative mentions China garnered, this analysis will also include China as a top exporting destination. One informant describes how clients from different countries differ:

"Mostly they are from Germany, USA, France. Big orders (on hats) from China and Japan. European retailers tend to be smaller. One Chinese order was 1000 hats."

Manufacturer 5

The takeaway from this informant is clearly one of scale. It seems like we can group China and Japan together as larger scale customers, and group Western retailers together as smaller scale customers. Another informant confirms this experience, and expands on his experience with different regions:

"Japanese customers were nice. They don't bargain so much. They are happy with a little discount. Europeans bargain too much. The Chinese come and they have WeChat and talk so much with their friends and take pictures, and then they buy. They are nice. They buy a lot. Europeans only buy 1 thing. Chinese can buy 2-3-4-5-6."

Manufacturer 4

This further supports the clustering of Chinese and Japanese customers together as high value buyers. The reference that the informant makes to WeChat is based on the increasing trend of Chinese who use the social media application to sell to thousands of customers back in China. These digital retailers upload pictures of products during their travels and take orders and payments from customers back home that are following. This way their online storefront allows Chinese retailers to sell while travelling and does not require any inventory; all sales are on-demand. With regard to the preferences of these high value markets, the same informant continues:

"Chinese and Japanese, they love the natural coloring technique."

Manufacturer 10

Using natural coloring create products that have more natural palettes and simple colors. The alternative to this would be using artificial coloring techniques that dyes the hemp fabric bright colors, and is often uses as accent details on products, e.g. for pockets. Another informant provides insight into one group of customers who prefers the more vibrant colors:

"USA, France and Australia want high quality bags. Denmark, Switzerland, Germany want chemical dye."

Manufacturer 13

This informant further distinguishes between two other clusters: USA, France and Australia, as well as Denmark, Switzerland and Germany (see Table 6). The latter may be considered Germanic countries, where the former is a cluster of Western countries. What can be deduced from the different informants is that there is a preference from the Asian countries for natural dyes, where the Germanic countries prefer chemical dyes. This is one distinction that it worth being aware of during production. However, the statement that the other Western countries prefer high quality bags is not incredibly insightful in itself, though, it may indicate they there have higher expectations towards the durability of the materials used in the product; which the data analysis will discuss later in relation to product upgrading. In relation to having high expectations of quality, it seems that retailers in the Netherlands and United Kingdom may similarly demand a certain level from their manufacturers. When retailers from these two countries asked to rate the accuracy of the following statement: "*The suppliers generally produce high quality products*" the three suppliers from the United Kingdom and Netherlands all replied either 'Disagree' or 'Neutral'. For this

reason, we will group them together with the other Western countries. The table below summarizes the key takeaways from the end-markets:

Clustering of End-markets		
Larger scale customers	Smaller scale customers	
China and Japan	*Australia, France, Netherlands, United Kingdom, United States*	*Germany, Switzerland*
Natural dyes	High quality bags	Chemical dyes

Table 6: Clustering of End-markets

Overall, there was no consistency in responses as to whether the demand was growing or decreasing. Most informants were asked this question, as well as the retailers through the survey, and the answers were greatly varied and contradictory. Further, given the unreliability of the TEPC data, this paper will not conclude on the development of the industry in terms of quantity of sales.

5.1.4 Summary of Findings: Levels of Analysis

The content in the table below is noted as summary points because they are the initial deductions made on the available data coded under each theme (see Table 5.1). However, they have not taken into account the way these deductions may interact and influence one-another, and therefore they should not be considered final takeaways from this paper.

Theme	**Summary of Findings: Levels of Analysis**
Regulation: Legality	1. There is a large gap between de jure and de facto reality regarding domestic cannabis legislation. 2. The government spends resources removing and burning cannabis plants, making it very difficult to produce anything on a farm level. 3. The domestic legislation is based on the international legislation; likely driven by foreign pressures.

Regulation: Subsidies and Support	1. The government supports activities in the secondary economic sector through equipment, training and network. 2. The hemp industry is missing out on the indirect efforts made to support the agricultural industry. 3. For gatherers the only legal option to increase income is to improve the scope of activities, not the scale.
Regulation: Taxation	1. The government has created export taxes on hemp products, despite the fact that cultivation of all cannabis is illegal. 2. Exporters and wholesalers consistently seem to negate the system through industry-wide tax evasion. This happens through under-reporting, mislabeling or smuggling products out of the country.
Governance: Villagers - Middlemen	1. The villagers who collect the hemp from forests are completely reliant on the middle-men who purchase the fiber or yarn from them. There is little to no leverage from the villagers. 2. Villagers are captive suppliers and the linkage is governed by captive mechanisms, as the suppliers are completely reliant on the buyer after having made an investment in spinners. 3. Lowest-income villagers cannot afford spinners and are instead commodity suppliers.
Governance: Middlemen - Wholesalers	1. Middlemen are governed by the market but benefit from a culture of strong personal relationships and long-lasting loyalty to suppliers. 2. Middlemen are commodity suppliers as it would be simple for them to use their equipment (trucks) for transporting other goods.
Governance: Manufacturers - Wholesalers	1. Manufacturers and wholesalers are often the same actor. 2. Over time, wholesalers have been integrating manufacturing into their hierarchy.

Governance: Wholesalers - Foreign Retailers	1. When foreign retailers buy from wholesalers, the relationship is governed by the market. 2. There is a trend towards foreign retailers engaging more closely with Nepalese manufacturers and establishing a relationship with modular governance.
End-market	1. Retailers from China and Japan tend to buy bigger orders and prefer natural dyes. 2. Retailers from Germanic countries tend to prefer bright colors, with chemical dyes. 3. Western retailers in general have high expectations of quality and buy smaller amounts of products.

Table 7: Summary of findings: levels of analysis

5.2 Economic upgrading in the hemp value chain

In this section, we showcase the findings analyzing the data for upgrading based on the references that the informants made to the different types of upgrading identified by current literature: 'process', 'product', 'functional' and 'inter-chain'. These comments may have been made due to a question specifically tailored to understand the potentials of the different types of upgrading or volunteered at a different time during the interview. Each type of upgrading will be given its own sub-section, and at the end of these there will be a short conclusion on general patterns in the data and key takeaways. However, this chapter will not be comparing the different types of upgrading as this will take place during the discussion chapter. The purpose of examining each component of the different types of economic upgrading is to identify where there is space for improvement in current practices, as well as recognize best practices that could be pursued. These opportunities for enhancement will lead to an analysis of what upgrading strategy that would be most appropriate and beneficial for the Nepalese context.

We will be analyzing the economic upgrading possibilities with the specific value added at each part of the chain in mind. Table 8 presents concrete calculations of the value distribution based on gathered pricing of products in Nepal.

Given that each bag weighs 400g this paper assumes that 1 kg of hemp textile can produce 2.5 backpack. This takes into account that there are other materials in a backpack, such as a zipper, inner lining and decorative detailing (often leather or colorful cotton).

Actor	**Sales Price (NPR/kg)**	**Extra Costs**	**Value Added (NPR/kg)**	**% of Total Value**
Villagers	400		400	2.7%
Middlemen	750	Fuel	350	2.3%
Manufacturers / Wholesalers	2.500	Zipper (60 NPR/bag) and labor	1.690	10.8%
Retailers	15.705	Shop and export	13.205	84.2%

Table 8: Calculations: value added across GVC nodes

As is typical in GVCs, the highest value added happens at the end of the chain, in this case with foreign retailers capturing 84.2% of the value.

5.2.1 Process Upgrading

Process upgrading is defined by strategies actors adapt to improve efficiency through the organization of production or introduction to new technologies. Hence, the interviews were coded for process upgrading according to the following five themes as defined by theory: new technology, transportation, consistency, sufficient supply and complying with standards.

5.2.1.1 New Technology

The use of technology in Nepal is quite rudimentary. There are a two main pieces of equipment used: (1) the spinners in the villages that turn fiber into yarn, and (2) the weaving machines in the factories that turn yarn into fabric. The fabric is afterwards used for products that are sewn together by hand in smaller factories. One issue with the Nepalese hemp products is the coarse quality of the textile, which make the fabric itchy to wear. This has led some shopkeepers to choose products from competitive markets, as described here:

"We sell hemp/cotton mix clothes from China. The material is softer. Right now no one is willing to invest in these machines/factories in Nepal. It's a more expensive process."

Manufacturer 11

Particularly China seems to be the main market which produces competitive textile. The softer materials is a notable benefit to the quality of the clothes, and is commercial on a much larger scale than the coarse Nepalese products. The issue of no one being willing to invest in the machines to make this treatment possible in Nepal is recognized by other informants:

"They have power-spinning in China that makes the textile so soft. It costs millions. The industry in Nepal is just not big enough for it to be worth the investment."

Manufacturer 12

Here it is specified that the machines are used for the spinning process, which would typically take place in the villages in Nepal where women spin fiber on small wooden instruments. Further, there seems to be agreements amongst the informants that the reason that no one is purchasing the equipment is that the current industry could not carry such an investment. For reference, our market research suggests that a machine to spin hemp fibers would cost approximately 20.000 USD (Alibaba), which translates into a couple of million Nepalese rupees. It seems that there is a tendency to avoid investment in specific machinery in the country. In fact, another informant working with hemp oil explained why lack of equipment was excluding him from international trade:

"In Nepal, the seeds are directly made into oil. In places where products have to be THC free, the seeds are broken open first and then made into oil. The machine to open the seeds are not available in Nepal."

Oil Manufacturer

Despite this informant owning a company that is the market leader in commercial hemp oil in Nepal, he also does not believe that the return on investment in machinery would be worth the risk at the current market size. This is largely based on the limited domestic interest in the product, and the obstacles to scaling export businesses in the landlocked country, which will be expanded upon in the following section.

Our findings show that there is an opportunity to increase the value added in Nepal by introducing new machinery that would improve the quality of the final products. However, the current market actors do not believe that there is enough profit in the industry for such a large investment to be made.

5.2.1.2 Transportation

The high cost of transportation is one of the most problematic obstacles for building a large-scale export business. In turn, this puts Nepal in weaker negotiation position in relation to the global value chain. Below, a retailer describes their process for distributing their products abroad:

> "Sending via air will double the price. A $50 yoga mat will cost the same to fly out. Shipping through India [Calcutta] is slow and it has to sit there and wait until the container is full. It's nerve wracking. We transport in bulk to [one of the owner's] parents in the UK and pay import tax. We send between 50-100 kg at a time. We rely mainly on Etsy for sales. They ship it for us. It's cheaper to transport there in bulk and then to Singapore or Australia, than to send it in small packages from here. It costs approximately $5 per kg. Price goes down as quantity goes up."
>
> Manufacturer 12

This informant clarifies the large cost that is incurred through transportation, and the need to transport the products abroad to a foreign distribution hub (in this case the United Kingdom). Further, two types of transportation are identified: (1) flying the products out with an air courier, and (2) shipping the products from the port of Calcutta. The latter also includes ground transportation of around 930 km, including crossing the Indian-Nepalese border. This on-ground trip would take approximately 1 week and include several regional border crossings within India (Shenship, 2019). 100% of the foreign retailers surveyed specified that their transportation method was through air courier. This creates a clear impression that the majority of exporters of hemp products prefer the high cost of flying over shipping the products out Calcutta. The informants below shed light on the risks that are associated with the shipping option:

> "I won't depend on the Indian port. Indian port authorities tamper with containers. They change Nepali labels into Indian ones. And change products in the containers. When it is bigger orders we will need to use ports. But it will require someone on the ground."
>
> Oil Manufacturer

This sentiment of fear of shipping containers through Calcutta was shared by numerous other informants; one of which also mentioned the tariffs at each regional border in India as a negative factor. There was also some reference to the corrupt nature of the Indian port officials, where you risked being stuck for weeks in the traffic of the port, in the case they did not pay a bribe. In general, the data indicates a low trust in the

Indian actors, and a specific story was repeated independently by several informants, although this paper could not find any valid external sources to verify the claim:

"The Darjeeling [Indian region] tea bushes are getting older. Nepali tea is better quality, so they sell to India for a lower price, and the Indians resell it for a high price Darjeeling tea. This means that Nepal can not grow it's name."

Oil Manufacturer

Our data indicates that the trust in the shipping process through India is so low that it should be considered a serious obstacle to efficient transportation and exportation of hemp products. Especially, since there seems to be agreement amongst the informants that if an order is of significant size, then shipping containers would be the optimal solution; there was always noted that a local representative in Calcutta would be necessary to avoid tampering with the containers.

The seemingly most efficient transportation system for hemp products, is the one that the Chinese WeChat retailers use. Here they WeChat retailers use Chinese courier offices to send packages to the Nepalese-Chinese border through the traditional truck logistic practices. After they arrive to the border China has an incredibly efficient logistics system that allows packages to travel from the Tibetan region to anywhere in the country within a few days. One of these retailers shares the affordable price for transportation for a single item:

"There is an Express Delivery to door in China, no more than RMB 20-25."

Foreign Retailer 1

This statement may imply that there is an alternative, cheaper pathway to seaports, if exporters begin transporting their goods through China instead of India. However, we could not find a single exporter who currently uses China to export their good to foreign markets. It is worth noting that the closest Chinese seaport is Tianjin which is 3,300 km from the northern Nepalese border compared to the less than 700 km from the southern Nepalese border to Calcutta.

5.2.1.3 Consistency

This theme is comprised of data about how actors in the GVC are affected by the consistency in the output from their suppliers. Please note, that this section will consider the consistency in the quality of output, as the consistency in supply. Given that there are several suppliers in the chain, it should be noted that different

consistency issues may be present at different links of the chain. This section will address the status of supplier consistency starting from the primary sector suppliers and moving up the chain (see Figure 3 below)

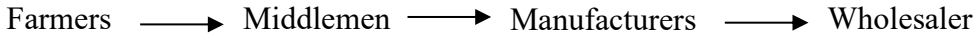

Figure 3: Value chain of hemp in Nepal

The first link to be examined is thereby the farmers, here the output is typically yarn spun in the villages. When asked about the consistency of the yarn the informants did not specify any issues. One comment made was by a retailer, who complaining about jute (lower quality fibers) being mixed into the fabric and sold as hemp:

> "People are making and selling cotton or jute with 5-10% hemp and making market worst."
>
> Foreign Retailer 11

It was unclear from this statement whether the lower quality jute was mixed together with hemp at the yarn spinning phase or the weaving phase, where the latter typically takes place in factories in the bigger cities. Based on the fact that no informant specified the yarn as being inconsistent product in terms of quality, this paper will assume that the farmers are generally delivering consistent products. Having said that, one informant did point to an issue that likely arises from the informal structures of the hemp industry:

> "Quality control is difficult, because the local villagers have no system to distinguish different qualities. Neither thread nor fiber."
>
> Manufacturer 2

The issue of having no consistent system of communicating the quality of the yarn or fiber that is being sent on to the manufacturer is detrimental to the industry, as this likely leads to further quality inconsistencies at later stages.

The second link to be examined are the middlemen. Their output is the delivery of yarn to the manufacturers in large cities, such as Kathmandu. Informants at this link of the chain stated that the relationships between them are based on strong personal relationships and trust. Generally, informants stated that they had consistent deliveries in-line from the suppliers, the exception here being if there was a supply shortage from

the villages, which will be covered in the next section on 'sufficient supply'. Even when probed, there was no issues concerning damaged goods or unfulfilled orders. One informant explained:

"We chose the supplier because they can always supply instantly."

Wholesaler 1

This leads back to the fact this relationship is governed by market mechanisms with many capable suppliers. It seems that this governance type has succeeded in weeding out transporters that were unable to consistently perform at a sufficient standard, as there were many other alternatives readily available for manufacturers to pick from.

The next link to be examined is the manufacturers. Their output is the creation of textile products; including actions such as dyeing, weaving, cutting, and sewing. At this stage there does seems to be an issue with consistency:

"Quality is a problem. I check every item before I send it off. If it's not okay I send it back to the factory. If I don't do this, I won't get returning orders. New factory workers can be bad quality. Then when I keep sending items back to them, they learn they have to do it right."

Manufacturer 11

This quote illustrates that the issue here is not with low quality products, but rather that there is not a reliant consistency at the level that the owner expects. This in turn requires a great amount of quality control at the final stage, before they are sent on to the next actor. Several informants recognize this as an issue, where it is usually left to a production manager or owner to approve all products leaving the factory. On the other hand, one retailer describes their positive experience with having a diligent and successful quality-controlled supplier:

"We have been lucky with quality. In the beginning we didn't really commit to one person. And the woman we have now is very good, she has worked with Japanese clients before and they are very particular. So she has an eye for details."

Manufacturer 12

This statement emphasizes the importance of finding a capable supplier, and the reality of this being a challenging feat. It reflects the reason why this level of the chain is moving towards hierarchical governance, so that wholesalers can take ownership of the quality assurance.

The final link to be examined is the wholesaler. Their output is supplying retailers with final products that can be sold across foreign markets. One retailer gave the following statement about their relationship with their suppliers:

> "The problem is [...] that the professionalism of many local shops (including my supplier) in Nepal is not good. The biggest problems I have encountered so far are long lead times (2-3 months), lack of good English communication skills, lack of professional procuring systems (products pics are sent over WhatsApp/viber to make a selection of products) and the inability to create exactly the same products between shipments (same color, dimensions etc.). All in all, if the hemp industry wants to grow in Nepal the above points should be addressed. If the process of buying and selling will be more efficient and delivery times would be reduced, this business would be much more scalable inside Europe."
>
> Foreign Retailer 13

The informant here identifies several distinct issues: 1) long lead times, 2) language inadequacy, 3) poor procurement process and 4) consistency. The first issue of long lead times will be addressed in the following section: 'Sufficient Supply'. The middle two can be combined into one category: poor communication skills.

The reoccurring issue of quality assurance returns, and here we do see a trend of retailers choosing to work even closer with their suppliers in order to confirm that products are consistently the same. These types of close partnerships seem to be increasing and may have an effect on the governance type at play, as retailers gain more control and influence over their buyers through larger, more specified orders.

5.2.1.4 Sufficient Supply

This section will investigate whether there is sufficient supply in Nepal compared to the current demand. In the previous section, it was established that there is an existing issue with long lead times. This was further confirmed by, the survey of retailers showed that 64.3% of respondents have experienced delayed delivery and/or lack of supply. One respondent gives the following explanation on their website:

"Sometimes we cannot order our pieces, as, for example, it is rice harvesting time, and the whole village will be busy picking rice."

Foreign Retailer 15

This emphasizes the fact that hemp is harvested as a supplementary income source for families and is not considered a priority for villagers. As one informant describes the process:

"It is not grown on farms. Most people have it as an extra income, by having some plants in their garden and harvesting them. It is not like a business."

Manufacturer 2

The fact that there is no organized methods around hemp forest collection could lead to assumption that it was already at the link of the villagers that the capacity to deliver sufficient supplies faltered. However, most of the informants we interviewed insisted that they did not have issues with lack of supplies:

"There are no extra transportation costs, even though they bring it to the store. We have never had problems with availability of supplies."

Manufacturer 8

Given that there is reportedly not a lack of supplies from the villagers, yet the retailers in the survey identified that there was a consistent problem with this self-same issue implies that the problem must lie at the manufacturer/wholesaler level. When asked about the process of receiving and fulfilling orders, this is what one informant described:

"The Swiss guy orders for a shipment and a second half two months later. This is a good way to guarantee quality. It gives us time to produce an order properly. A woman from Spain places an order 1 week before. This is very difficult [...] It's a real problem because when I get a big order, I might not have enough people sewing."

Manufacturer 11

This further seems to imply that the supply shortages stem from the manufacturer level, and perhaps this is caused by inefficient planning and procurement process. For example, it seems that the Spanish buyer described above is not giving enough time for the manufacturer to complete the order, yet throughout the years they have worked together this practice has not been changed. This same informant explained several

different timeframes that different buyers had, and while he often complained about the process it did not seem as if there had been efforts made to streamline best practices.

5.2.1.5 Complying with Standards

In the Nepalese context hemp is illegal, nevertheless, there are some informal standards that exists within the industry that actors claim to adhere to. One large communal claim is that there is no THC in the textile products created in the country, and this is likely a response to foreign standards where hemp products have been legalized in many countries for years, unlike cannabis products with higher THC levels. One informant describes the process for complying with standards:

> "The government's research center has tested the process and found that bags are THC free, but oils and seeds are illegal. There is only one place in Nepal that can test this."
>
> Manufacturer 13

The majority of backpacks made with hemp textiles bore a label "THC free", when the retail owners and factories were asked how they ensured that there was this was true a couple of them responded with: "*What is THC?*" or "*I don't know what THC is*." (Manufacturer 9, Manufacturer 3). It became evident that none of the retailers or manufacturers had any understanding of what THC was, and that the label had no significance with regard to the materials used. Manufacturers purchased the labels at a label factory in Kathmandu, and there was no screening process in any way concerning what products they were sewn on to. One of textile retailer described the following:

> "I put the 'THC Free' label on because some customers have problems with their governments, and this way they will know it's not marijuana. Everyone put this on the bags."
>
> Manufacturer 4

Despite there being a research center where fibers could be tested for THC levels, it does not seem to be industry standard practices in any way. Rather, it seems to be common practice for manufacturers and wholesalers to label their products without any knowledge of its accuracy. Based on the general ignorance of the actors at this level, it becomes uncertain whether the cannabis used within the Nepalese textile industry contains the appropriate range of THC to be classified as hemp. It is clear that there are no industry practices that aim at complying with the international standards related to hemp; regardless, the local actors actively claim that they do.

5.2.1.6 Summary of Findings: Process Upgrading

Our findings indicate that there is an overall lack of professionalism in the processes surrounding the hemp industry. This manifests in poor systems of workflows, such as poor-quality control, as well as a low level of shared knowledge amongst industry actors, such as the unawareness of the meaning of THC despite it being a prominent marketing element. Poor workflow systems also have negative effects on issues like the procurement process. This section also highlights a common sense that the industry is not large enough to invest into, seen through the disinterest in investing in new equipment.

5.2.2 Product Upgrading

Product upgrading is defined as moving to activities, which yield more sophisticated product (Salido and Bellhouse 2016: 10). This could either be in terms of quality or functionality. During the data collection it became clear that there were different interpretations of quality, and therefore this category has been split into two subsections: 'materials' and 'brand'. The former refers to the physical quality of a product, whether is it has the desired durability. The latter to quality in terms of consumer preferences, such as design. Hence, the interviews were coded for product upgrading according to the following three themes: quality of materials, quality of brand, and functionality.

5.2.2.1 Quality: Materials

Upgrading the quality of materials can increase the costs for a manufacturer, however, if the quality of the product is improved to the extent that customers are willing to pay more than the value added may outweigh these costs. All informants were asked whether there were any complaints regarding the quality of the product, and one issue was reoccurring: broken zippers in the bags. One informant had already identified the issue and taken action to upgrade his products:

> "There are never complaints about materials, only the zippers. Now we are using YKK certified ones from India."
>
> Manufacturer 10

Notably, the informant shares that the YKK zippers are bought through an Indian wholesaler and that the factory has to import the zippers themselves. Another early moving manufacturer likewise found it beneficial to import zippers from abroad:

"The zippers we use are from China or India. Best ones from Japan (YKK)."

Manufacturer 13

The majority of the market still uses alternatives to the YKK certified zippers. These non-certified, generic zippers are typically more plasticky and tend to break a lot quicker. However, a couple of informants claim that it is not a deterrent. One informant makes a general observation regarding the use of different qualities of materials:

"We can make different qualities. People tend to prefer the cheapest option, i.e. the lowest quality."

Wholesaler 4

Most wholesalers blame this on the massive competition in the market, where most actors are offering similar items. Given that there is a domestic market targeted at tourists, it is clear that many factories do not prioritize quality as there is practically no chance of a returning customer. The market therefore becomes flooded with cheap, low-quality products which other manufacturers have to compete with on price.

Besides the issue of zippers, informants often focused the conversations on the mix of hemp and cotton fabric when guided towards the topic of the quality of materials. Eight wholesalers brought up the topic unprompted, signaling that this is of high importance to the industry actors. The majority of manufacturers are using hemp/cotton blends, for two main purposes: to lower the cost and to soften the material. Many products also use cotton pieces for colorful decorations, e.g. as pockets or lining. One wholesaler attempted to stand out by specializing in high quality hemp only products, and they commented on their struggles:

"People don't want our expensive products [pure hemp products] so they buy mixed blends cheaper from other stores. We lose customers. People ask: "*Why are your bags so much more expensive?*""

Manufacturer 10

This statement seems to reflect a price cap for customers on hemp textile products, which makes it challenging for manufacturers to risk the added cost of higher quality components. On the other hand, it may also be an issue of unsuccessful communication to customers about the added value of the products. Based on the single case this paper can not conclude which is the more likely explanation. What is clear is that there is space for product improvement in terms of quality, alongside a resistance to raise prices from wholesalers.

5.2.2.2 Quality: Brand

As the previous section on quality of materials touched upon, there is an issue of generic products on the markets. There is generally no way of distinguishing products from one manufacturer to another, and there is no attempt by local actors to develop brands. One informant describes the market:

> "Hemp clothing is sold generically so there are no manufacturer labels, just the content label."
>
> Manufacturer 10

In the same store there was an advertisement which read: *"These items can easily be customized by adding your own logo or labels*". This paints an image of a market that is so saturated with similar products that they become indistinguishable from another; and not just on the manufacturer level but on the retail level as well. Given that a wholesaler offers to add retailers brand onto the products, with no distinction made gives a clear indication that there differentiating products and creating brand value are very low priorities in this industry. Further, one manufacturer describes what he does when a foreign retailer gives a complicated order for their own brand:

> "It's crazy when people buy wholesale but want different colors. Europeans often do that. Buy 20 pieces and want 4-5 different colors. My factory workers get very annoyed with this. So I will usually order min. 10 of each color and sell the rest in my store to make the factory employees happy."
>
> Manufacturer 11

What can be gathered from this quote is that foreign retailers can expect that the products which they pre-order will be found in the local, Nepalese wholesale market soon after. In this case, the manufacturer is attempting to fulfill the retailer's request, and has no sense that there is a risk of damaging their brand by selling their products to potential competitors. Overall, there seems to be a lack of appreciation that a company may benefit from having a unique product. There was only one manufacturer/wholesale informant who had put in strategic effort into designing their own products which took inspiration from contemporary Western fashions:

> "Other wholesalers buy 1 or 2 bags for retail price and copy our designs. The owner does her own designs. She copies US design, e.g. Michael Kors and clothes from Moschino."
>
> Manufacturer 10

As the quote suggests, there is a problem with the systematic copying of designs from other manufacturers, so that the competitive advantage of having a superior product is not isolated with one actor for very long. Further, this seems to be a cultural tendency as even the informant that claims to be doing their own designs admit to copying larger Western brands. Based on the statements from informants, we found that there seem to be no repercussions for copying designs in any form. There are no legal repercussions as there are no intellectual property rights that cover designs, due to the cultural acceptance of the practice there is no reputational cost and given that manufacturers are able to copy designs within a short time span there is practically no first-to-market advantage. This tradition and acceptance of copying designs could be a serious barrier for any large retailer looking to use Nepal as a production location product on a competitive market.

5.2.2.3 Functionality

Another strategy to upgrading the product according to theory, is by adding functionality. We asked actors to identify shortcomings or areas of improvement of current products, and in relation to this there was one informant who was attempting to create additional value by adding the following functionality to his bags:

> "Some places have low quality which isn't quite waterproof. Waterproof is not all bags; I get waterproof linings from India."
>
> Manufacturer 11

For a customer there is real, tangible value added to having a waterproof backpack where they can safely store their electronics or books. When asked which consumer demands that retailers cannot currently meet, this was also highlighted by one informant:

> "Lightweight and waterproof which the hemp can't do."
>
> Foreign Retailer 18

This statement reiterates the preconceived image of hemp as being a specific type of material, which is unable to meet modern expectations of textiles. The retailer is correct in the sense that hemp products would not be waterproof without an inner lining, which would not prevent the exterior layer from becoming wet. This poses a practical issue that Nepalese manufacturers have not addressed, and likely requires more advanced textile technologies than are available locally.

5.2.2.4 Summary of Findings: Product Upgrading

Our findings indicate that there seems to be many that manufacturers can adopt with the goal of upgrading the products that they are creating. A lot of the industry is currently creating products that would be considered low quality in foreign markets, due to the use of subpar components such as cheap zippers and linings. This is also reflected in the feedback that was given by the surveyed online retailers (see Figure 4 below), where only a minority of 32% agreed that the products they were received were high quality:

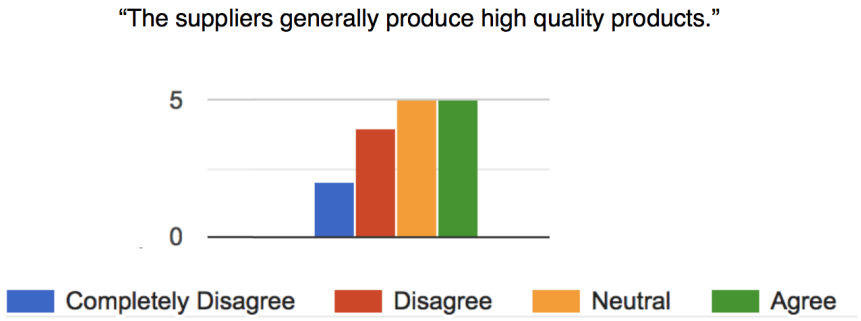

Figure 4: Survey Answer Question 14 (See Appendix 2)

Considering that the majority of retailers are not positive about the quality of products, there seems to be a real space for improvement for Nepalese manufacturers. Based on the data, this paper identifies two overarching obstacles to creating high quality products:

1. Nepal lacks a variety of components to supply the development of the industry. Each manufacturer is forced to find a foreign supplier in India or China and establish an independent relationship. This happens in an unstructured manner and does not take advantage of the fact that there might be numerous manufacturers all needing the same components.

2. The tradition of copying designs from one another, as well as international brands, hinders companies from investing in developing unique designs. The value in building a brand or creating distinctive products is undermined by the fact that other companies will almost immediately copy your efforts, with no repercussions of any form.

5.2.3 Functional Upgrading

In the theoretical framework, functional upgrading was defined as migrating into higher value-adding functions. This would include increasing the skill level of production, hereunder abandoning old practices

and taking over upstream and downstream activities. Therefore, during the coding process it was noted every time an informant introduced a potential improvement to the supply chain that included one set of actors capturing a different part of the supply chain or abandoning old practices significantly. There were three themes that arose from these notes: farming, designing and villager empowerment.

5.2.3.1 Farming

A substantial barrier in this industry is the informal process of collecting hemp fibers through forest gathering. This contributes to the previously mentioned issues of inconsistent supplies and legal risks for the villagers. An informant from the tea industry, another emerging agriculture-based industry in Nepal, had the following comment on working with smaller organized groups of forest gatherers:

> "I have moved from cooperatives to farmers. They have control over the entire process and provide a more consistent quality. I have 4-5 farmers that I deal with directly. I still feel like it's doing good, because the farmers employ many others."
>
> Tea Retailer

Keeping in mind that this is with reference to tea leaves, it is worth noting that actors in another, more organized industry have opted to use farmers to secure consistency in the product. This may also hold true if the hemp industry grows to a larger scale, and the villagers can no longer control the quality of their output; and therefore, farmers would be the viable solution in terms of consistency for scaling the production process. Another informant that works with several fibers is already experimenting with establishing farms for amongst other things hemp:

> "We are making a farm for training. The purpose of this is to attract youths back to farming."
>
> Manufacturer 12

This speaks to another issue that Nepal is facing, namely the declining interest in agriculture, with the mass migration of youths leaving the country for work abroad. It is worth noting that the average household in Nepal has relatively poor agricultural practices, with the country as whole having one of the lowest agricultural productions in South Asia and remote areas barely meeting consumption needs (ANGOC and AAHM, 2012). Keeping this in mind, there is a general lack of interest from villagers to invest in engaging in commercial farming. This is in line with the theoretical framework which states that suppliers in captive relationships often are discouraged from partaking in functional upgrading (Ponte and Sturgeon, 2014: 53).

This is part of the motivation from the abovementioned informant to revitalize interest in agriculture and improve the efficiency of production. If given this sort of training, villager could evolve their forest gathering practices into farms. This would be a low hanging functional upgrade, where actors' skills are improved and old practices are abandoned. However, the institutional barrier to this is the illegal status of the crop, and therefore, it would be high risk for actors to invest time and resources in organizing the production.

5.2.3.2 Designing

In line with the previous issue brand quality and the general use of general designs in the industry, there seems to be an opportunity for both functional upgrading, as well as product upgrading. The distinction here would largely be based on what actor would take upon the responsibility of upgrading the quality of the product: foreign retailers or manufacturers. If the foreign retailers undertake the task of improving the design of the products to better meet the demands from the end-market, this would be solely product upgrading. If the manufacturers invest in improving their skills and take over this responsibility, then there is space for functional upgrading. Currently, the designs seems to be driven by foreign retailers:

> "The designs are made in the factories or by customer request."
>
> Manufacturer 2

Generally, there seems to be a complacency with the fact that the foreign retailers know their end-market, and therefore are responsible for the design; which is a high value adding activity. Nevertheless, there are some outliers who are seeing this opportunity and beginning to learn from international brands and create their own designs. An example of this was included in the previous section, where one of the wholesalers stated that: "*the owner does her own designs. She copies US design, e.g. Michael Kors and clothes from Moschino.*" While this previously highlighted the issue of copying designs, it also illustrates that local actors are beginning to proactively upskill themselves in order to take over downstream activities.

5.2.3.3 Villager Empowerment

The villagers find themselves in a captive relationship with the middlemen. Their exchange is based on the middlemen visiting the villages and buying the fibers at a set price. Currently, these prices are based on contemporary market value, however, there were several informants that claimed that middlemen were providing lower prices to the villagers in order to get a larger cut for themselves.

"There are so many middlemen, and they all take a cut. Most hemp comes to Kathmandu, and the villages have no idea what the prices are. Collectives could hire someone to keep track of prices and buy communal machines (e.g. for spinning). This would add value locally."

Manufacturer 12

The issue here is that there is information misalignment between the villagers and the middlemen. For the villagers to receive market value for their products they therefore need to gain access to the correct information. This could happen through the use of information and communications technology (ICT) or through villagers functionally upgrading and capturing the role of the middlemen. In order for the villagers to successful take over this downstream activity would require: 1) capital to invest in a truck, 2) a network of buyers in urban areas, and 3) the skills and knowledge of how to perform the middlemen's job. These requirements are significant barriers for most villagers who do not have access to disposable income and would need to external assistance with establishing connections and understanding the job.

5.2.4 Inter-chain Upgrading

The theoretical framework defines inter-chain upgrading as using existing skills to move into a different value chain, with immediate and final buyers in new sectors. Our findings suggest that there is a great deal of opportunity for this throughout the supply chain. The interviews were coded for mentions of other industries, and thereafter this coding was further coded to detect if this could be a complementary industry. Based on these findings, this section will be divided into two groups of actors: upstream and downstream actors.

5.2.4.1 Upstream Actors

Upstream actors include the villagers and the middlemen. Their existing skills center around handling hemp while it is still a raw material, therefore the alternatives industries that could make sense for them to explore would be other use cases for hemp across new industries. As stated in the background chapter, there is a large amount of different use cases for hemp. Through the interviews we identified two other industries currently using the plant: food and oils. A noteworthy characteristic for both these products is that they use different parts of the hemp plant that textile products. While textile products use the stem for fiber, it is the seeds are edible and used in the food industry, and the leaves that are used when extracting oils. Therefore, villagers and middlemen should be able to easily move into these value chains with their current skill sets. Villagers know where to find the and harvest the plant, and the middlemen know where to buy the materials and how to navigate the roads back to urban areas for processing. During our field research we managed to

conduct interviews with one wholesaler from each industry, who provided the following insights on how they currently get their supplies:

> "We work with a farm that is 2.5 hours away; it is distilled there [...] We work with them to plant vegetables as well to earn money."
>
> Oil Manufacturer

This is the oil wholesaler explaining how they work with farmers near Kathmandu, which includes training the farmers on how to distill the hemp into oil. It is worth noting that this informant worked with a large amount of different plants for oils, and therefore, the farm that is being referred to is not strictly a hemp farm. It was unclear from the interview how the hemp plants were organized on the farm and how many there were. The food wholesaler described his suppliers:

> "Farmers collects the seeds in the villages. Seeds are not illegal. Because no one grows it, just collect. It's part of the culture. Everyone has seeds in their kitchens. We buy the seeds in marked in Lakemati. We have a mill where we make the oil."
>
> Seed Wholesaler

After the interview, we visited Lakemati market in order to find the suppliers and it was clear that the origin of the seeds are villages in very close proximity to Kathmandu. Therefore, in both cases of food seeds and oil it is evident that they are sourcing locally grown hemp, while every informant from the textile industry is sourcing from far away, mostly in Western Nepal. This does indicate that the villagers who are selling hemp fibers in the textile GVC are not the same as those selling seeds and leaves, Therefore, there seems to be space for both the villagers and middlemen to benefit from inter-chain upgrading, by simply adding consumers from other industries into their current supply chain.

5.2.4.2 Downstream Actors

Downstream actors include manufacturers, wholesalers and foreign retailers. Their existing skills center around handling the coarse yarn they are given and producing a commodity that is commercially successful. Therefore, their potential for interchain upgrading would not lie in entering new industries in the same way as the upstream actors, but instead staying within the same industry and using different materials. The majority of actors at the wholesaler and retailer level mentioned that they were already engaging with sales of competing fibers to hemp. One wholesaler describes the alternatives that are in direct competition with hemp in the Nepalese market:

"Competitive products are bamboo, allo [nettles], banana. I prefer allo for clothes. It doesn't itch as much, as hemp."

Manufacturer 4

These three fibers all grow natively in Nepal as well, and unlike hemp do not have the legislative restrictions of being illegal. Interestingly, none of the manufacturers we interviewed worked with any other fiber than hemp. Even when the manufacturer and wholesaler had the same owner, the production of hemp products would happen in-house, and the alternatives would be bought from another factory. This paper will not claim that there are no factories that engage with all fibers, as this would require more research into that specific topic, but we can note that it was not as prevalent as a wholesaler selling many different fabrics. It may be worth exploring if manufacturers could benefit from inter-chain upgrading by adding different types of fibers into their factories, and leverage the skills and workforce they have already working on creating textile products.

5.2.5 Summary of Findings: Economic Upgrading

The content in the table below is noted as summary points because they are the initial deductions made on the available data coded under each theme (see Table 9). However, they have not taken into account the way these deductions may interact and influence one-another, and therefore they should not be considered final takeaways from this paper.

Theme	**Summary of Findings: Economic Upgrading**
Process: New Technology	Nepalese hemp products are being outcompeted by softer textiles from China, made on industrial spinning machines. Local actors do not believe the industry is large enough sustain an investment into this modern equipment.
Process: Transportation	Exporters prefer transporting through air couriers; which is incredibly expensive. There is low trust in the Indian shipping route, as actors fear their containers will be tampered with.
Process: Consistency	There is a problem with the consistency of products at the manufacturing level, which demands a great deal of quality control.

Process: Sufficient Supply	1. There is a issues supply shortages from the retailers' perspective. 2. This shortage is likely caused at the manufacturer level, based on insufficient production timelines.
Process: Complying with Standards	1. There are no practices for testing the level of THC in a fiber. 2. There is a common practice of labelling products 'THC free' without the manufacturers understanding what it means.
Product: Materials	Typically, bags will have low quality zippers. Negative responses from customers have led some manufacturers to use certified YKK zippers, which they import from India or China.
Product: Brand	Practically all products are generic. There is no focus on building brands or creating unique products. There is a tradition and acceptance of copying designs from others, with no repercussions.
Product: Functionality	Some manufacturers are creating waterproof bags. This requires linings that are imported from India.
Functional: Farming	The villagers have an opportunity to engage in upgrading by establishing farms, however, there are legal barriers.
Functional: Designing	Some early mover manufacturers have begun working with designing products for end-markets and taking over downstream activities.
Functional: Villager Empowerment	Villagers are currently being cheated by the middlemen, who are paying them prices below market value by leveraging information misalignment.
Inter-Chain: Upstream Actors	Both the food and oil industries in Nepal use hemp but have different suppliers than those in the textile industry.
Inter-Chain: Downstream Actors	1. Wholesalers and retailers sell other natural fiber products such as bamboo, nettles and banana. 2. Manufacturers tend to work with a single fiber in their factories.

Table 9: Summary of findings: economic upgrading

5.3 Social Upgrading in the Hemp Value Chain

In the theoretical framework, it was explained that social upgrading would be an essential part of the analysis within this paper. Therefore, the interviews were also coded for mentions of social upgrading opportunities or efforts. These coding themes were based on the measurable components mentioned in the theoretical framework chapter: total employment, wages, the female share of employment and labor conditions (Salido and Bellhouse, 2016: 10-11). The category 'wages' has been split into two different themes namely 'wages' and 'payment of suppliers'. The reason for this being divided is that in a GVC there is both the social issue of how wages are paid by their employer, but also the payment for products between chain links; i.e. the transaction between suppliers and buyers. The price of a product may have a direct effect on the wages paid, nonetheless, we felt that it would be best to distinguish between these two themes. Hence, the interviews were coded for social upgrading according to the following themes: total employment, wages, payment of suppliers, female share of employment, labor conditions and labor rights.

5.3.1 Total Employment

Our research uncovered that Nepal has a large problem with unemployment, though it is difficult to identify the scale of it through statistics as there are quite varied reports on the topic. For example, the World Bank reported an unemployment rate of 1.3% in 2018 (World Bank, 2019), while the Nepalese Central Bureau of Statistics reported an unemployment rate of 11.4% for the same period (Central Bureau of Statistics, 2019). This stark difference makes it difficult for this paper to make an assumption on how large the unemployment rate truly is and speaks to the difficulty of collecting data in the Nepalese context. Based on strong anecdotal evidence that there are issues with specifically youth unemployment. Currently, 40% of Nepal's population consists of youths who are facing the strongest barriers to unemployment, with a reported 19.2% unemployment rate (UNDP, 2018). The response to this job shortage from many is to migrate abroad to look for work. One informant describes how this has affected his factory:

"16 years ago, I had 100 people working in the factory. Now I have 4 [males]. Youths are going to Saudi Arabia, Dubai, Malaysia. If they have an education, they go to USA or Australia (my son is doing his masters in Melbourne)."

Manufacturer 11

It is worth noting the distinction between the destination countries of migration workers based on their socio-economic status. The most recent report published states that 786,564 foreign employment permits have been issued in two years, which alone accounts for almost 3% of the population. (Ministry of Labor and Employment, 2018: 1). This same report also highlights that every year thousands of complaints from migrant workers in Malaysia and the Gulf states are filed against recruitment agencies, that profit of exporting Nepalese labor (ibid.: 23). As indicated by the informant above, these complaints are likely submitted by individuals from who are in vulnerable economic situations and are therefore more susceptible to being recruited by these labor agencies, without safeguarding any of their rights. The conditions abroad often do not comply with basic International Labor Organization standards, and in the past decade almost 6,000 migrant workers have died abroad. Malaysia and the Gulf states account for at least 95% of lost lives, and the report calls for further investigation into the exact causes of deaths based on suspected misreporting (ibid.: 27-29). It is therefore relevant that any industry that aims at improving the standard of living in Nepal also prioritizes creating new jobs. One informant explains why she prioritizes spending time securing large buyers by bringing them to her suppliers and creating a bond:

> "Societal impact is important, and we want to show big buyers the crops. We have to keep the livelihood of young people so that they don't move to the Middle East or Malaysia."
>
> Oil Manufacturer

Given the greyzone of the industry, there are no official records on the number of employees within the Nepalese hemp industry. Nevertheless, this paper notes the importance of job creation in the Nepalese context, and emphasizes the importance that if economic upgrading leads to less employment opportunities, then there will likely be a misalignment with the desired social upgrading.

5.3.2 Wages

The issue of wages is relevant in part of the value-chain where there is a hierarchy, i.e. an owner that pays their employees through wages. In the context of this paper, this would include middlemen and manufacturers. Unfortunately, we did not gather sufficient amount of information from the middlemen to have reliable insight into their practices regarding this topic; therefore, this section will focus on the manufacturers. From a social perspective, it is important that wealth is distributed throughout society and that workers engaging with a GVC are paid a livable wage. This in turn also requires a certain level of employment certainty, which one informant highlights as the largest barrier to decent work:

"It is a problem when there is no sale because the factory workers are paid on a monthly basis. And if production stops there will be a backlog. This is where collaboration with INGOs could be helpful."

Manufacturer 4

This informant has been running a factory producing hemp products for more than a decade, and shares that it can be incredibly difficult to foresee when there will be high and low demand. In turn, it is too expensive to build up stock that might not be sold, for the purpose of paying employees every month, and therefore, there are numerous workers at his factory that do not get paid every month depending on demand. This becomes an incredibly large uncertainty in the livelihoods for these factory workers. The informant indicates that collaboration with INGOs could assists in lending credit to continue operation during months without sales, however, as this may not be a long-term viable option. This speaks to the issue of that more than half the workforce on salary do not have full-time or permanent employment (ILO, 2018). Without guaranteed, recurring sales factories cannot consistently produce products, which in turn creates job insecurity for the factory workers.

5.3.3 Payment of Suppliers

The issue of payment of suppliers has been touched upon previously in this analysis, including the issue of middlemen not being paid the market value for their materials. In this instance this speaks to the captive relationship between the two actors and illustrates how captive suppliers lose the ability to negotiate the terms of decent pay. When considering the rest of the value chain it becomes clear that the other suppliers do not have a similar predicament, as both the middlemen and wholesalers are governed by market mechanisms and therefore it can be assumed that all parties are free and able to pick different suppliers and buyers. Therefore, this section will only discuss the payment of villagers. Based on the information misalignment between villagers and buyers it is clear that the villagers are not currently able to guarantee fair payment and given the lack of governing framework from institutions like government or unions, it falls upon the buyer to ensure that there is a decent pay. One informant states why she intends on increasing the payment of her suppliers as her business grows:

"We are working with four [suppliers]. If they started making Rs. 10, they should not keep making Rs. 10. As we enter the international market, their value also increases. Like Rs. 50. Then they will be loyal."

Oil Manufacturer

This mentality is driven by a strategy of securing loyal suppliers, rather than paying market price. This would likely also be a decision based on solidarity, and the intention of sharing added value throughout the

chain more fairly. While the strategy of paying higher than competitors has historically been successful, buyers have to be cautious of the effect such efforts may have on the rest of the industry. Keeping in mind that the informant above feels secure in gaining international customers, which is not something that all Nepalese wholesalers would be able to do to, another informant shares a story of good efforts gone wrong:

> "You cannot pay a higher price than [suppliers] ask. An American couple started a farm just past Dhulikhel. They were buying one sack of fertilizer for 100 NPR/sack. But they could afford to pay more, so they began paying 200 NPR/sack. Once those making the fertilizer realized they could get more money for their product, they put up the price and this meant that the local farmers could no longer afford it."
>
> Manufacturer 12

The 'Dhulikhel dilemma' described above illustrates the difficulty in navigating in an environment where there are significant differences between the economic status of actors. This instance resulted in great grievances for many of the local farmers that did not have access to international markets and could no longer afford to buy fertilizer and subsequently had to suffer a poorer harvest. At the same time, the fertilizer producer was not reliant on selling the same quantity of products, as they were getting twice the price, and therefore did not feel pressured to lower the price again. This gesture from the American couple led to an increasing gap within the local community, and the actors who were affected negatively were those local farmers that were worst off to begin with.

5.3.4 Female Share of Employment

When analyzing the entire supply chain it becomes clear that the role of females are clustered at certain links (see Table 10). Namely, there is a majority of female actors at the villager level and the factory level. Below is an overview of the dominant gender at each link of the supply chain, as well as the value-added at that level.

Role in Chain	Villagers	Middlemen	Manufacturer	Wholesaler	Retailer
Dominating Gender	♀	♂	♀	♂	?
Value Added	2.3%	2.7%	10.8%		84.2%

Table 10: Gender prevalence in the GVC

Unfortunately, we did not collect structured information about the genders of actors at the retailer level, and therefore, this data analysis cannot take this level into account. This should not affect the validity of the analysis, as we are focused on upgrading in the Nepalese context and the retailers are typically foreign. Overall, it can be assumed that females in all positions are earning less than their male counterparts. Statistically speaking, the wage gap for females in formal economic sectors is 60% (Sijapati et. al., 2015) and only 8.3% of females in the labor force are paid (Acharya, 2014). This speaks to the incredibly gender inequality that is embedded in the culture. One informant voices his frustration with the current imbalance when talking about labor intensive tasks:

"We have both male and female employees, and honestly, the females are much better. They work harder. We want to just hire them. The men are paid more because they say they are skilled laborers, but they are not. But we can't pay the women more because then we have a Dhulikhel dilemma: 1) If we pay the men less, they won't stay, but 2) If we pay the women more other farms will be angry. Maybe we should just go for option 1?"

Manufacturer 12

This informant makes reference to this distinction between salaries for labor intensive positions where females are automatically classified as unskilled and males as skilled, regardless of their previous experience. The issues that employers must be aware of is the cultural barriers there are to injecting equal pay, which the informant also alludes to. If this employer decided to lower the pay for male laborers, they would likely lose the male employees but also create a normative injustice in the society. This could lead to do social repercussions for females, or any employees, that decided to continue working for the employer. Given the importance and influence of social capital in Nepal, there is a risk of being ostracized for engaging with an employer that is considered unethical (Krishna and Adhikari, 2010).

5.3.4.1 Villagers

In the villages, the collection and spinning of hemp is predominantly driven by villagers who seek to earn an additional income for their families. These activities are mainly driven by women, as Nepal is experiencing a feminization of agriculture where men are becoming occupied with income generating work in non-agricultural sectors and are increasingly moving towards urban areas for employment (Allendorf, 2017). This means that women are taking over agricultural work, both in terms of subsistence farming as well as secondary income streams such as hemp. In this context, all members of a family will be working

towards securing a livelihood; and therefore, the 2.3% value captured at this stage would be shared within a family structure and not contribute to a woman's independent economic status. This would likewise be the case for the male members of the family who garner income through other sources. This underpins the communal culture in villages, where it is unlikely that any actor would acquire independent wealth.

5.3.4.2 Middlemen

There are two layers of actors in the category we define as middlemen: the managers (truck owners) and the laborers. Given that the transportation of hemp from villages to cities is a labor-intensive activity, the majority of actors in this role are male. There are some cases of middlemen hiring women to assist with loading and unloading products for a lower wage as they become classified as 'unskilled laborers', as was verified by the informant earlier in this section. On the other hand, the high-status middlemen require economic investment to purchase a truck, so at the higher hierarchical level of middlemen there are practically only men. It can therefore be assumed that the 2.7% of value captured here is captured mainly by the truck owners who are male.

5.3.4.3 Manufacturer and Wholesaler

In the factories, the majority of workers are females. It should be noted that the majority of owners are males, and therefore it can also here be assumed that the owners capture a larger share of the value added than his female employees. Many manufacturers would promote the fact that they most hire women to work in their factories.

> "Local officer from Dailekh gives the idea to work with poor women. They are more reliable and work better. They are Himalayan citizens."
>
> Manufacturer 13

Across the industry the employment of females is used as a signal of corporate social responsibility from factories to foreign retailers. The narrative is usually focused on the fact that poor women are given the opportunity to work and be given a wage that they can support their families. The informant mentions Dailekh which is a poorer district in Western Nepal, that suffers from acute food shortages most of the year and has an average life expectancy is 58 years old; i.e. 17% below the national average (Rural Access Programme, 2016). The term 'Himalayan citizens' used by the informants illustrates the distinction in local mentality between urban Nepalese citizens and persons from villages in the mountains. Another informant who owns a factory with 56 workers made the following arguments for why he hires women the majority of the time:

"We only hire women, because they are better at the work, and they cost less. The women come from outside Kathmandu. They have no land or money, and I hire them."

Manufacturer 4

This informant does emphasize the argument that women generally have little claim or opportunities to a decent job. As previously mentioned, only 8.3% of females in the labor force are in paid positions and therefore, payment for working in a factory, which is not very labor intensive, can be considered a very desirable job (Acharya, 2014). It is worth noting again that there is a continued focus on women from villages outside Kathmandu, who likely have migrated to an urban area in order to find employment. A third factory owner has a critical perspective of the mass employment of women:

"So many people are proud to be hiring only women. But the bosses are still male. And the women are paid less than males, so who is really winning?"

Manufacturer 12

The inequality between factory workers does exist, and once again the issue of unequal payment between genders is consistent. One of the factory workers insisted that this was because the women were responsible for the sewing, while the men working in the factory were responsible for the pattern cutting as "*only men know how*" (Manufacturer 13). Here the women are systematically allocated lower valued tasks, and thereby there is further justification for lower pay.

5.3.4.4 Retailers

This research did not collect any structured information on the gender of foreign retailers, and therefore we cannot conclude anything on this point. It may be noted that based on informants that have been interviewed, this paper does not see any apparent dominating gender at this level.

5.3.5 Labor Conditions

Once again, for the topic of labor conditions this paper will discuss the setting of factories where there is an employer responsible for creating a safe working environment around their employees. Generally speaking, the factories we visited were quite primitive. The factories were further found across a variety of locations: some were located within houses, some were in tin sheds, and one was partly covered with tough canvas. Several of the factories had dirt ground, which could become a concern during monsoon season. However, the most alarming piece of information shared by a factory owner was the following:

"The other shop (across street) burned down. Fire caused by electricity wires falling."

Manufacturer 4

This informant described how his second factory had burned to the ground and he had lost all his inventory. However, this is perhaps a clear illustration of the lack of basic safety practices. Loose electrical wires had fallen down and started a fire in the textiles. Throughout the industry there is a general lack of attention to factory safety standards.

5.3.6 Summary of Findings: Social Upgrading

Theme	**Summary of Findings: Social Upgrading**
Total Employment	There is mass migration of Nepalese youth workers that move to unsafe working conditions, through for-profit recruitment agencies. The most common destinations countries are the Gulf states and Malaysia.
Wages	Factory workers are dependent on consistent sales, otherwise they do receive payment.
Payment of Suppliers	The Dhulikhel dilemma illustrates how overpaying suppliers with the intention of supporting the previous links in the GVC can hurt the local economic ecosystem. This occurs because when the suppliers experience higher payment, they raise their prices and other actors reliant on their product suffers.
Female Share of Employment	1. Females represent a large part of the hemp value chain, particularly at the agricultural level and in the factory. 2. Females are systematically paid substantially lower than men for the same work in all positions. 3. The employment of females from rural areas is often used as a marketing element for corporate social responsibility.
Labor Conditions	Overall safety standards in factories are very low.

Table 11: Summary of findings: social upgrading

Chapter Six: Discussion

The previous chapter of this paper laid out an overview of our data analysis. We explained how the Nepalese industry is governed and what relations exist between the various nodes in the value chain. We presented data from interviews collected over a four-month period time in Nepal, where we gained insights from villagers, middlemen, manufacturers as well as international retailers. The data analysis forms the basis for answering our research question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework?"

As mentioned before, we see the research question as twofold. The first part of the question concerned with the current state of the hemp industry was mapped out and answered in the previous section. The hemp industry in Nepal was furthermore placed into the legal context of both national and international regulation, in order for the reader to understand all the structures affecting the relations in Nepal.

Our ambitious for this project were, however, larger than simply describing the state of the industry. We sought to understand the various power dynamics and governance structures affecting the global value chain (GVC) and, most importantly, we wanted to identify potential for upgrading at various parts of the chain. Our goal was to arrive at a number of recommendations that could be actionable. Focusing on upgrading, we wanted to understand how value is distributed and evaluate what possibilities there are for capturing more value at each node. Attention will be paid not only to the economic upgrading possibilities, but also the social implications they present. As Ponte and Sturgeon (2014) argue, economic upgrading often translates into social downgrading. The social aspect of the value chain and its implications is a large part of this paper; thus we will not recommend actions which would harm the population. A larger discussion can be had about whether or not structural restructuring that lead to temporary loss in working conditions, structural unemployment, etc., need to happen for progress in the long-run to be achieved. However, that is outside the scope of this paper and it was never our intended plan to discuss this.

In order to conclude our research ambitions, the sections to follow will first discuss the different upgrading possibilities for the Nepalese actors, within the current legal framework. Considering said framework, a subsequent discussion to evaluate the feasibility of these recommendations will be made. We are paying special attention to the legal aspect, due to the fact that in its current state it does not allow for much upgrading. As the previous chapter showed, that is mainly due to the unclear regulation, which leads to

confusion and creates a hard-to-maneuver environment. However, if the legal landscape was to change, more possibilities to increase supply of the plant would be created. In order for us to understand how a change in the legal framework could happen, a short discussion of the types of power, which had effect on the shaping the legislation to its current image will be brought forth. We will also discuss how a change of the legal framework could happen, specifically what types of power and which actors could affect this change.

When discussing the legal framework, presenting our recommendations and discussing the feasibility of the various scenarios we will do so under the assumption that Nepal has the resources to identify the difference between hemp and marijuana. As we discussed in the previous chapter, only one research center in Nepal possesses the technology to distinguish between the two strains of cannabis, this means that evaluating the level of THC in hemp plants is currently not feasible. Distinguishing the two strains on a large scale would require significant investment from the Nepalese government.

Unfortunately, it is outside of scope to present a comprehensive discussion on what research and investment would be required to make THC-detecting technology widely available and would be better suited for students researching chemistry. As we presented in the data analysis section, not even the villagers picking the hemp are certain whether the plants contain THC. This is also true for the manufacturers and retailers, who stated that “they put up non-THC labels because they know that is required” but have little knowledge about what THC means. Nonetheless, we assume that the fact there is no efficient way to distinguish between the plants is not a “deal-breaker” as we have not observed that the hemp being picked and processed is misused for recreational drug use. Therefore, all the further recommendations will be done with the assumption that the plants being used are indeed non-THC, or that the government can regulate the growth.

Furthermore, as we discussed in the methods chapter, we believe some findings can be generalized to other landlocked developing countries. We will argue that first, the analytical framework combining GVC upgrading, governance and power could be applied in other countries with similar geographical conditions. Second, other developing countries could leverage the framework in order to understand the power of international regulations on national legislations in weaker states.

To wrap up this chapter we will discuss possibilities for further research. We will briefly discuss the two main avenues of further research. First, the possibilities of moving to other industries, which also use hemp

and secondly, the implications of lack of infrastructure. The constraints of infrastructure have an effect on both the local transportation of goods as well as on the position of Nepal in the global value chain.

6.1 Possibilities for Upgrading in the Nepalese Value Chain

In the data analysis we presented a model, which depicts the governance structure and relations across the various nodes of the Nepalese hemp GVC. This section of the chapter will compare the theoretical framework to the empirical level of our findings (see Table 6.1). The specific forms of upgrading identified here, will form the basis for our recommendations presented later on in the chapter. The value chain will be discussed based sliced up in the nodes of the Nepalese hemp chain.

	Villagers	**Middle Men**	**Manufacturers and Wholesalers**	**Foreign Retailers**
Relationship	Captive	Market	Hierarchy	Market
Upgrading potential based on theory	Process Product	Functional	All	Market
Upgrading potential from data	Improving the process of gathering the fiber, by creating farms. Better machinery	Onboard buyers from other industries that use different parts of the plants (e.g. seeds for food).	Improve the quality of products by investing in new technology (e.g. super spinner). Improve processes of taking orders from retailers. Improve quality of material used (e.g. zippers).	Identify more efficient means of transporting the products out of Nepal.
Effect of Nepalese legislation	Large effect on growing and processing crop. Villagers assume largest risk	Medium - transporting mainly yarn. No direct risk associated, unless transporting raw product	No risk assumed as they are only receiving processed yarn. Legal frameworks limits supply	Legal framework limits supply but has no direct effect on the sales of products

Effect of global legislation	None	None	None	High, affects transport outside of the country (checking at ports)

Table 12: Overview of governance, upgrading and regulation in GVC

6.1.1 Villagers

Based on the gathered data we define that the villagers, who are the actors collecting and processing the plant are operating in a captive governance structure. During the interview process we discovered that villagers are living in low-income households and use hemp as a way to subsidize their income. In many cases the motivation for taking part in the industry is to feed their family, which puts them at a disadvantaged position when it comes to bargaining.

The villagers do not have a constant supply to the crop, as they are usually not harvested through systematic and organized farming practices but usually grow the product in their garden or go out and collect the plants that grow wildly in the woods. Farming of hemp is widely discouraged, as the government sporadically come and burn down crop in farms, thereby resulting in huge losses. Nonetheless, after the villagers have collected whatever crop they get access to, they process it into yarn. This yarn is, as we found, not of the highest quality due to the fact that the spinning methods are not advanced or efficient.

The most common form of upgrading in a captive relationship is, according to GVC theory, through process or product upgrading (Ponte and Sturgeon, 2014: 53). Our findings show that indeed the two forms of upgrading discussed in theory are also the case in Nepal. We have identified several possibilities for upgrading. The first is the upgrading from forest collection, or small batch garden growing, to farming. This would have a positive affect across the whole value chain, because a steady supply of the product could be achieved, stabilizing the demand/supply balance across the GVC. More international actors could be interested in doing business with the Nepalese retailers if they believed that a steady supply would be present. However, even scaling up the production would not solve all the problems. Significant investment would be required into the processing of the yarn, to create a softer and more usable product like the yarn being exported from China. By upgrading the spinners, Nepalese hemp textile would become competitive on a global scale.

6.1.2 Middlemen

The middle men collect yarn from villagers and transport it by trucks to cities, where it is sold for manufacturers. We identified that the relations between middle men and manufacturers is based on a market relationship. The cost of switching to a different middleman/manufacturer is close to none, as there is no investment needed from either party. Interestingly enough, all the informants stated that the relationships between these actors are long term, based on loyalty and personal trust. This is of no surprise as, culturally, business in Nepal is based on trust and long-lasting relationships.

In literature a market relationship is widely identified as one that promotes functional upgrading (ibid.:53). During our research we found that the middle men transport hemp alongside a variety of other products. Though they are a part of the value chain, they are also contributing to other industries. We did not identify any specific form of upgrading the middle men could achieve in order to generate and capture a larger value in the GVC of hemp. The only possible course of action for these actors would be acquiring better transportation vehicles. However, due to the bad infrastructure of roads in Nepal, this investment would likely not yield any benefits, such as speed of delivery or quantity of products transported.

6.1.3 Manufacturers and Wholesalers

The manufacturers are the actors, who receive the product brought from villages and weave it into textiles in order to create products. The wholesalers then sell the products either locally, mainly to tourists or to foreign retailers, who then proceed to export the products internationally. Larger Nepalese cities have small and medium sized factories, where this happens. We have identified that most of the owners of the factories, where products are assembled, are also the owners of stores, or the ones selling the product. This governance relationship has developed into a hierarchical relationship, due to the fact that the investment by the manufacturers is significant and the information about design are hard to codify.

A hierarchical relationship is most likely to encounter all forms of upgrading (ibid.:53). We have specifically identified the potential for upgrading the process in which the yarn is woven into fabric. Specifically, using better spinning machines would create a softer and more comfortable product. This product would be comparable to the output of other countries hemp industries and could then compete on a global scale. Thus, investing in new technologies would yield large benefits in this node of the value chain.

Furthermore, ensuring a consistent supply of both quality and design would increase the competitiveness of the Nepalese actors on a global scale. One of the problems brought by our international reseller informants was the fact that there is no quality control over the products that they receive from the local wholesalers. Often times international retailers need to check the products for mistakes and then send them back to the factory to get fixed or require new orders. The manufacturers and wholesalers must improve the quality and consistency of the product in order to be able to capture larger value. A solution to this problem could be the upskilling of the workforce, and having clear standards for each product, as to ensure consistency. Four distinct issues have been identified between the international retailers and local wholesalers: (1) long lead times, (2) language inadequacy, (3) poor procurement process, and (4) consistency. Improving the processes in the factories and becoming more reliable are required in order to succeed on a global scale.

6.1.4 Foreign Retailers

Foreign retailers are the actors buying Nepalese hemp products and exporting them abroad, in most cases these are small and medium-sized businesses, selling directly to consumers. These actors are mainly constrained by the international legislation framework and the transportation infrastructure. Where the middle men are concerned with the quality of roads in Nepal, foreign retailers experience issues when trying to get the products out of Nepal. High costs of transportation pose the largest obstacles for a large-scale export business. One of our informants stated that they use their suitcase to transport small batches of tea outside of the country, however this method is limited to small amounts and leveraging it would not yield a larger export business. Furthermore, due to Nepal being landlocked without access to ports, foreign retailers must rely on the Indian port Calcutta, which is known for the fact that containers are tampered with. It is evident that in order for foreign retailers to enhance the processes to export hemp and to become more efficient, they would need to overcome the problem with insufficient infrastructure for export. Furthermore, as one informant explained, side payments are required when transporting products on land. "*When we drive from Tibet to Kathmandu, we have to go through 10 checkpoints and each time we have to pay a fee and a bribe. It's really expensive"*. Thus, in order for a larger part of the goods to be exported into the global economy, significant development of infrastructure would have to happen.

6.2 Achieving Change in Legal Framework

The information we gathered throughout our data collection process led to one shocking discovery we did not take into consideration prior to conducting our research. Namely, the fact that Nepal's regulation and legal framework is not only weakly enforced and lacking, but it is also confusing for some actors and unknown altogether by others. This is an interesting discovery, and something to be taken into consideration, as the theories and literature we draw upon assume a strong government and regulation. Nepal however, being one of the least developed countries in the world, does not have the same standards. Conducting research in a country, which has such weak governance changed our perception of what is true in the Nepalese context. In line with the critical realist approach, we uncovered that the real level is indeed quite different to what we observe in the empirical level - also known as counter-phenomenality (Collier 1994:7).

Different actors, based on their socio-economic status, had different perceptions of the law and the government. One textile retailer stated that although hemp is illegal to grow, he has never heard of anyone getting into trouble for doing so and does not believe the Nepalese government has time to regulate it. This means that even though this individual is aware of the illegality of growing hemp, he does not consider it a problem to grow the plant. Evidently, the Nepalese government, does not enforce the laws in the same manner as us, researchers from the West, would expect when dealing with a product which is illegal. However, given the weak governance of Nepal, it is perhaps not a surprise that the de facto reality is quite distant from the de jure reality.

While the textile retailer was fairly well-informed on the legality, or rather illegality, concerns of growing hemp, the information we gathered in villages seemed to suggest that the actors are not preoccupied by the illegality of growing hemp as they do not know or do not understand the law. Rather they observe the effect that once in a while the government decides to cut down their crop. Across the value chain we are have discovered what could be called disregard or ignorance towards the laws, and a space where actors conduct business as usual, though once a while they are inconvenienced by the police and government. However, as one informant put it "[police intervention] does not matter, the wind will take the seed away and re-pollinate".

This raises the question *Who can have effect on laws, if they are not enforced, not taken seriously and in some cases not understood?* As we have shown in the previous chapter, the Deputy Director of the Nepalese Trade and Export Centre stated that cannabis is illegal due to international regulation. He argued that the

UN Convention on Narcotic Drugs from 1961 clearly prohibits hemp cultivation, however, we found that appendix 28.2 in the convention exempts hemp from this law. This statement is symbolic of the power the western countries have over Nepal.

One of the retailers we interviewed was of the opinion that the reason for hemp becoming illegal was as an effect of pressure from the USA and United Kingdom (UK). If we were to analyze this pressure through the typology of power, as presented by Ponte et al. (2017), we could argue that the change in regulation happened due to bargaining power. Bargaining power is characterized as one, which is imposed by one actor, who holds a superior position over another. Whether it be in controlling important resources, or by effect of being larger player with more pull, this form of power is transmitted from 'top to bottom'.

Though Nepal and the USA/UK are not directly participating in the hemp value chain, the USA and UK are strong trading partners with a significant influence and strong global position. We therefore assume that they have leveraged their superior positions in the global economy to influence the legislation in Nepal, which has resulted in the current anti-drug laws. Most notably, this insight differs from the way in which Ponte et al. (2017) theorized and applied their typologies of power. This pressure is also discussed by TWAIL scholars, who argue that that international politics is illegitimate as it sustains the subordination of the Third World by the West.

Based on our research and findings, it is our strong belief that if the Nepalese hemp industry is to become more organized and generate more value for the country, hemp would need to cease being characterized as illegal. However, the actors across the value chain do not show any incentives to try and change the current legal framework, as it is not posing a large challenge to the current state of the industry. However, in order for real change to happen and to assume a stronger foothold in the global chain, we argue that one of two scenarios would have to occur in order to influence the Nepalese government in changing the current regulation.

First, the Nepalese government could be incentivized by international organizations through what Ponte et al. (2017) call 'institutional power'. This form of power is exercised by formally organized collectives such as business associations or multi-stakeholder initiatives. As we have discussed in the first chapter of this paper, the benefits of hemp are countless, and the full-potential of the plant is yet to be uncovered. Not only in the textile industry, but construction and industrial manufacturing industries are ones, which are likely to start leveraging this plant more. Assuming that international organizations would bring attention to the potential economic gains from growing the plant, the Nepalese government would be more likely to focus

its attention on the legal framework surrounding the plant and consider the implications the illegality of the crop holds for the economy. Nepal is one of the countries where the plant thrives due to its mild and humid climate. It is also a country where hemp has grown naturally for thousands of years and unlike other crops, the hilly landscape does not possess a challenge for the growth or harvest of the plant. The incentive to promote the hemp industry domestically could result in a vibrant agricultural sector economy where hemp would be one of the leading crops. This would stabilize the agricultural sector, as the growth of hemp is not as unpredictable as other weather-susceptible plants.

The second scenario we have envisioned would affect the Nepalese government through 'constitutive power'. This form of power is similar to institutional power explained above but is less formalized. It can lead to change by collective action, like social movements or groups of activists. We believe social activist groups could create initiatives from Nepalese people living abroad. As previously established, 29% of the Nepalese GDP stems from diaspora communities living in the West, where hemp is beginning to become more popularized. Recognizing the potential of the crop in their home country could lead to strong initiatives to change the law. After the 2015 earthquake, hemp bricks used for construction were brought up as a possible solution for cheap housing. Though the construction industry was not our primary focus in this research, one way to initiate change of the legal frameworks could be to show how cheap housing could be built with the product. If the Nepalese government understood the social benefits the crop would have through the construction of cheaper housing, it could create enough incentives to change the regulation. Nonetheless, initiating change would have to begin with the diaspora network as the local communities are not showing signs of discontent or being interested in progress.

The data we have gathered has shown that the Nepalese government is not very preoccupied by hemp production. As one informant stated, "the government has larger issues with other drugs". This fact leads us to believe that if the benefits of the crop were well presented and proven, the legislation in Nepal could be changed in favor of what some call the miracle crop.

6.3 Recommendations

Given the governance structures, which are defining the current value chain and the power relations within it, we considered all the possible courses of action each actor in the value chain could take. The possibilities for upgrading in Nepal are countless, however it is important to consider the whole value chain and improve the entire industry. Combining this with the legal framework, we sought to find upgrading possibilities, which would produce cascading effects that influence all the actors and would be beneficial to the Nepalese

stakeholders. The global value chain is an integrated network of actors and must be considered holistically. Any action by one actor in the chain will have an effect on all the other links. We therefore sought to find specific upgrading possibilities which would not harm any of the actors, due to our interest in social upgrading. Once again it must be emphasized that the assumptions under which we are presenting these recommendations are that (1) hemp is legal and allowed to grow in farms and (2) there is a possibility to test the product for its THC-value.

First, we would recommend that the villagers move from forest picking collection methods to growing hemp in farms. This way they can ensure a consistent supply for the rest of the value chain, which will alleviate the potential of grasping a larger share of the global industry for everyone in the Nepalese hemp chain. By growing more hemp, the villagers will increase the predictability of harvests and stabilize their income source. Furthermore, the captive relationship they find themselves in with the middle men, who will at times take advantage of the remote-living villagers, could be confronted in two ways. The first possible action is to collectivize in the villages and take care of the transportation themselves. If the villages formed unions, they would be in a stronger position to take up more nodes of the chain and ensure a fair pay for their services. Nonetheless, some villages may be too small to be able to afford a truck, and due to the shaky infrastructure, driving to the city could pose an unwanted risk. The main problem in the captive relationship between the villagers and middle men is the power asymmetry and access to information about prices of hemp in large cities. Most villagers do not have access to any technology, except for radios. Thus, the other option we have identified is to create a channel on the radio, where every day the prices of products would be called out. This way the villagers would not be exploited, resulting in potentially a fairer pay.

If the villagers take on the functions we discussed above, the manufacturers and wholesalers can rely on a steady supply and enhance their production as well. First course of action would be to purchase super spinners in order to increase the quality of the final products. The machines, regularly used in China, process the yarn and weave it into a soft string, which is then used for sowing and increases the softness of the product. Processing the hemp in this way would result in quality of the final fabric, which is comparable to all the other material globally, thus increasing the competitiveness in the textile industry. Secondly, the manufacturers should invest in design capabilities as to create products, which are attractive for a wider population. The current clothing is colorful and sometimes shapeless, thus only a small population of the world would wear it. Some companies are making simple t-shirts and pants, with the sustainability mark, which are sold in the West with great success. Furthermore, as hemp is more durable than cotton, creating basics collections and marketing them in the West could significantly raise the demand for the products.

6.3.1 Social Implications

Now that we have presented our recommendations, one point needs to be brought forth. This research paper set out to find a way Nepal can develop its capabilities in the hemp GVC, especially how it can capture a larger value from participating in the global economy. Our recommendations assume that some investment would be needed at various parts of the value chain. In the case of the villagers, who we would upgrade to farmers, a large part of their successful scaling is also developing the processing of hemp. Our other recommendation for acquiring better processing machinery warrants a significant investment as well. All of the above investments would require individuals with significant capital to enter the supply chain. We believe that in order to achieve social upgrading alongside economic upgrading, all the investment should be found locally or through the diaspora network. If the investment came from international actors, the villagers would once again be held in a captive relationship with international actors as would the manufacturers and wholesalers.

We have identified some foreign retailers who are beginning to take a more active lead in their supply chain. In these cases, the role of exporters and wholesalers disappear, and foreign retailers can therefore directly with manufacturers. This leads to a GVC that generally seems to follow a modular governance structure, as illustrated in Figure 5 below.

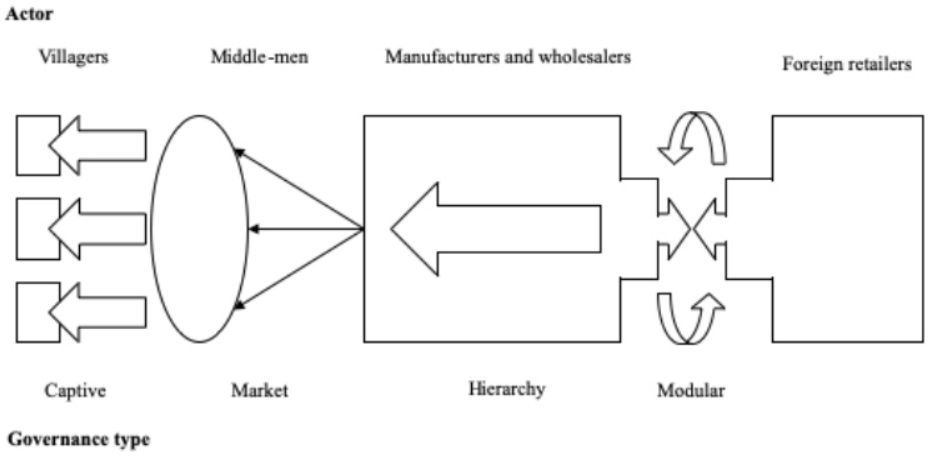

Figure 5: The transfer of power across GVC with higher involvement of foreign retailers

This seems like a natural progression as modular governance is the closest to market governance terms of complexity and codifiability, and therefore it is the development that would require the least change to the current structure of the industry. However, as we have argued the most beneficial path for the Nepalese

population would be to ensure that international actors do not take larger parts in the value chain, as they would in turn be the ones capturing the added value.

Another important fact must be brought to attention. Though this research paper only wished to investigate hemp and drew a line between the industrial plant and marijuana, the social implications of legalizing hemp growth in a country with a weak government could lead to actors growing marijuana under the pretense of it being hemp. This is especially dangerous in Nepal, as the country has no methods to distinguish the levels of THC and CBD in the plants. Based on our data it seems that all the villagers collecting hemp are doing it with the sole purpose of processing it into yarn. However, they are unable to distinguish whether the plant indeed has no THC. We have not entertained the idea that the villagers would begin growing marijuana for the purposes of drug cultivation. However, there is a risk from the international community that certain actors could come and exploit the weak testing in Nepal and begin a booming drug industry. Still one government official holds the belief that "if we promote the industrial uses the drug uses will go down".

Thanks to a modular approach to our research, we were able to study certain parts of the Nepalese hemp industry and arrive at certain conclusions, however the reality of the network of the value chain is that it is affected by more than just the regulation and governance, which we have identified. There is a countless number of externalities, which define the context of the growth of hemp and they should be considered in the case that this research would be drawn upon to implement change.

6.4 Generalizations

The case we set out to study is highly context specific. We are dealing with a very niche product, in a landlocked mountainous country which is on the list of the LDCs in the world. Nonetheless, some findings could be generalized to other cases. First, we have presented a theoretical framework, which analyzes a country's position in a GVC, which has no lead firm. Especially in other developing or least developed countries, this is a beneficial framework for understanding trade and value added in GVCs. Countries with large agricultural sectors will likely experience similar problems as the Nepalese case, an example being the captive relationship between the middle men and villagers. Other countries could benefit from implementing technologies like radios, to inform the rural population about fair prices of produce and empower their position in the national economy.

Secondly, using our theoretical framework could also help gain insight into other least developed countries on how the national state's regulations is affected by international legislations. Global Value Chain analysis

amongst others looks at the specific country's position in a value chain and how the global value chain affects the local actors. We believe that the genealogy of power as proposed by Ponte and Sturgeon (2017) combined with the global value chain understanding of governance and upgrading would be beneficial in identifying other countries potential.

6.5 Further research

In the course of our research, we gained insights into the textile industry of hemp where we chose to focus on only a small part of the huge potential this plant has. We have identified certain areas, which warrant further research, some of which we briefly touched upon in this paper and other aspects which were outside the scope of this paper. We will briefly discuss the two main avenues of further research. First, the possibilities of moving to other industries and secondly, the implications of lack of infrastructure. Expanding into other industries is a natural progression, if the quantity of the product increases. The interest with transportation is brought forth as it affects both the local movement of the product as well as the options for international distribution.

6.5.1 Alternate Uses of Hemp Across Different Industries

Based on research conducted alongside this paper, we have found that there is currently a significant growth in hemp use across a variety of industries. This is due to the fact that novel research is constantly revealing new uses for the plant. Each of the industries would warrant further in-depth research to be conducted in order to investigate the specific products in depth and compare their potential for the Nepalese economy. Globally, we see an emerging market trend of hemp products sales rising rapidly. It is forecasted that by 2020 the global market will be worth 5.7 billion dollars (see Figure 6). Though hemp can be used across countless industries, in the context of Nepal we would recommend focusing on pharmaceuticals, construction and hemp seeds.

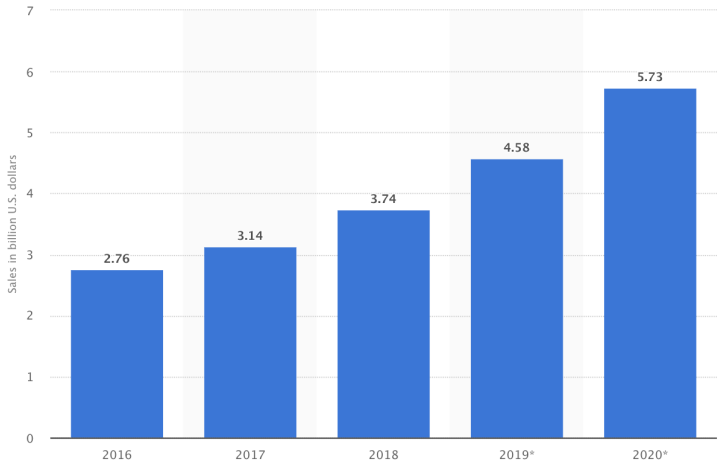

Figure 6: Global Hemp Sales Prediction Statista (New Frontier Data, 2016 to 2020)

6.5.1.1 Pharmaceuticals

During our time in Nepal, we discovered that a significant part of the Nepalese population suffers from glaucoma, which is a condition causing damage to the optic nerves in the eyes (Nordic Oil, 2018). The condition is hereditary and often shows up within the older population. Most importantly, if left untreated it can lead to permanent blindness. It was however found that CBD treatment from hemp is an effective cure for the condition. The largest empirical case study of glaucoma was conducted in Bhaktapur, Nepal and concluded that the overall prevalence of glaucoma in the Nepalese population was 1.9% (Suman et al., 2012: 759-764). Leveraging the natural remedy to cure the local population would significantly increase the living quality in Nepal.

6.5.1.2 Construction Material

Similarly, to the pharmaceutical use of hemp to cure glaucoma in Nepal, further research could be conducted on the use of hemp as a construction material for domestic usage, rather than an export product. Hemp has been proven as a strong supplement to concrete when mixed with limestone; in 2017 the first public use hemp building was opened in USA (Kaney, 2017). This usage could address the dire need for building materials for houses in remote areas of Nepal after the 2015 earthquake. It is estimated that 500.000 homes still need to be rebuilt, which is in part lack of affordable supplies (Build Up Nepal). Furthermore, hemp has also been used as insulation in houses and can be used for a variety of purposes in construction.

The use of hemp as a construction material domestically has already gained some traction. In 2015, just months after the earthquake, international attention was focused on Dhiraj K. Shah, who was a Nepalese

expat living in Lisbon. After the news of the devastating disaster, he decided to move back to Nepal and start a company, which uses hemp fiber to construct low-cost housing. He argues that the abundance of hemp in Nepal can be used for mass-scale home-rebuilding. Based on our research we have identifies this as a definite area for more research (HempToday, 2015).

6.5.1.3 Hemp Seeds

Further research could also be done in the potential of the hemp seed export business. These seeds have a wide range of usage from eating them raw, grounding them into a meal or using the seeds for baking. The hemp seed market is expected to grow at CAGR of roughly 14.3% over the next ten years (Market Watch, 2019).

6.5.2 Understanding the Constraints of Transportation

The second avenue for further research are the constraints that a poor infrastructure has on the participation in a global value chain. While we are unaware of studies that explicitly take into account a country's quality of infrastructure and connectivity when assessing FDI spillovers or broader GVC effects on economic upgrading, it can be expected to influence the predictability, reliability, and timeliness of supply in GVCs (WEF, 2013). Many countries cannot join certain value-adding activities of the GVCs because of their inability to meet requirements for timely production and delivery. An example of how this may manifest is that a single day of delay in exporting has a tariff equivalent of 1 percent or more for time-sensitive products (Hummels, 2007). Slow and unpredictable land transport keeps most of Sub-Saharan Africa out of the electronics value chain (Christ and Ferrantino, 2011). Sellers are often willing to pay more for airfreight. Delays in GVCs also create uncertainty, inhibiting countries from participating in GVCs for goods such as electronics or fruits and vegetables (Arvis, Raballand, and Martea, 2010). Regarding cost reduction, GVCs have changed the perspective on traditional barriers to trade, such as tariffs.

Some recent studies suggest that reducing supply-chain barriers to trade—border administration, transport and communications infrastructure, and related services—would have greater impact on the growth of GDP and trade than the complete elimination of tariffs. Cutting supply-chain barriers to trade could increase GDP by nearly 5 percent and trade by 5 percent, against less than 1 percent and 10 percent, respectively, for complete tariff removal (WEF, 2013). Developing countries would be the main benefactors of trade facilitation. Transport costs, according to developing-country suppliers, remain the main obstacle to entering, establishing, or moving up in GVCs (OECD-WTO, 2013).

Further research should take a holistic perspective of policies surrounding logistics performance, whether for infrastructure investment and operation or for regulatory matters, including trade facilitation at the border. Improving the quality of infrastructure and promoting international connectivity touches on several dimensions: tightening forward and backward links within GVCs by securing the flow and lowering the costs of inputs and outputs, increasing speed, and reducing uncertainty. Therefore, higher quality infrastructure and better connectivity at the border can have a positive impact on GVC integration (Kummritz et al., 2017: 9). In the Nepalese context, there have been policy moves towards opening up avenues in China for exporting purposes. Most recently, China has discussed granting Nepalese actors' access to seaports for third country trade (Acharya, 2018).

Chapter Seven: Conclusion

To conclude, this research paper investigated the Nepalese hemp industry and it's fit in the global value chain of hemp. Taking a modular approach to the study we were interested in how Nepal can capture larger economic value by adapting and developing new strategies. The goal was to understand how the country, which is one of the least developed countries in the world, and was recently hit by a earthquake of 7.9 magnitude, could leverage the untapped potential of a plant, which has grown in the region naturally for thousands of years. In order to achieve the research ambitions, we sought to answer the research question:

"What is the current state of the Nepalese hemp industry and how can the country capture larger value from the global value chain, considering the current legal framework."

We considered this question as a twofold challenge. First, we investigated the current state of the industry by leveraging the global value chain theoretical framework and placed the governance structures into the legal and national Nepalese legal framework. Secondly, within the context of development studies, we set out to present a number of actionable recommendations that could be applied in Nepal and result in inclusive development, thereby improving the livelihood of the Nepalese population.

After the earthquake in 2015 struck the country, 70% of the people in Nepal were affected. The country, which is primarily dependent on agriculture, is still struggling to bounce back. Though Nepal's agricultural sector cultivates a variety of crops, farmers are at the liberty of the ergonomic conditions, which affect the quality of the crop. The unpredictable conditions inherent to life in Nepal pose a large challenge to cultivation and farming. Furthermore, due to the fact that 66% of the country is covered in mountains or hills, terraced farming does not allow the use of heavy machinery, significantly affecting the quantity of output for farmers.

Considering the climate and the geographical conditions we decided to focus our attention to hemp. This crop thrives in Nepal's climate and creates a definite opportunity for growth as internationally the hemp market is booming. We investigated how the production of hemp fits into the global economy by deploying a global value chain approach. Understanding the various relations and links of the industry helped us arrive at a model, which depicts how the various nodes of the value chain are structured and subsequently identify potential for upgrading at each link.

The actors we have identified in the chain were (1) villagers, living in rural areas and collecting the crop. The villagers also to some degree processed the raw fiber into yarn, which was then delivered into the cities by (2) middle men, who drove around villages and collected all the products. (3) manufacturers and wholesalers in large cities received the yarn from the middle men and proceeded to weave it into textiles and assembled the final products, which were then sold locally in stores. Lastly (4) international retailers, who acquire small batches of the finished product and transport it outside of Nepal to sell it globally.

After carefully analyzing the current state of the industry, the governance structures and power relations within it, we presented our recommendations. First, we identified that the best course of action would be to scale up hemp cultivation in villages, and instead of forest picking the villagers should grow hemp in farms. The scaling of production would ensure a consistent supply of the product in the rest of the value chain, increasing the competitiveness of the country on a global scale. One of the main problems international retailers brought up was the unpredictability of supply, thus ensuring exactly that would definitely allow the country to take up more of the global industry and in turn capture more value. Secondly, we identified the need for the manufacturers and wholesalers to invest in new technologies for weaving the yarn into softer textiles. The global hemp market is dominated by Chinese products, which comprise 70% of the global supply. This is due to the fact that the Chinese products are significantly softer and thus more comfortable to wear. We argue that if the manufacturers in Nepal upgraded their processing methods, they would suddenly be able to compete with all the other products globally, once again, capturing more value from their activities in the global economy. Lastly, investment into designing more appealing products would also increase the potential for global sales.

The recommendations we suggested must however be put into the socio-economic context of the country. As our research question hinted, we wanted to make sure that the development was inclusive and had a positive effect on the livelihood of the Nepalese population. The highly diverse country has 29.7 million people spread across 125 different ethnic groups and 60 different castes. Ensuring inclusive growth could be achieved by activating the diaspora community and ensuring that all investment needed for upgrading capabilities would be a result of Nepalese investment. We have identified that some foreign retailers are beginning to take a more active lead in their supply chain. Foreign investment, while beneficial in the short term, could lead to captive relationships across the value chain, which would in the long run once again have a negative effect on the living and working conditions. Our goal was to empower the Nepalese population by providing them with access to information and various machinery to become competitive in the global chain themselves, not as a proxy of foreign retailers.

Another large part of this research was the legal framework constraining the hemp industry in its current form. Due to international pressure in the 1970s, and the 1961 UN Convention on Narcotic Drugs (UNODC, 1961), the Nepalese government created a legal framework where hemp was banned under the premise of being connected to marijuana. Still today, the crop is banned, however due to the weak role of the government in Nepal, there is a wide interpretation of the illegality of the plant. Individuals across different levels of society interpret the law differently, where for some it is confusing others are unaware of the law altogether. After identifying this discrepancy in the understanding of the law, we wanted to explore who would have the power to change the legal framework. We then proceeded to argue that the Nepalese regulation could be changed by two types of power, which are defined in the typology of power in GVCs. First, The Nepalese government could be incentivized through institutional power, where organized collectives would present the economic benefits of the plant. Secondly, constitutive power from the diaspora community could change the regulation by collective action. For example, showing the benefits of hemp in the construction industry and how the plant could be leveraged to rebuild the destroyed houses after the earthquake could be incentive enough to affect change.

Linking to the potential of using hemp in the construction industry, we suggested two avenues for further research as a development on our project. First, we believe that more research should be done into the potential across industries besides textile. It is forecasted that by 2020 the global market will be worth 5.7 billion dollars and Nepal could leverage its favorable climate for growing hemp to export larger amounts of the product internationally. Secondly and lastly, more research must be conducted in order to understand the constraints a broken infrastructure has on transportation in Nepal. Both transportation within the country, as well as the exporting of the product via air or land warrants further investigation. Nepal being a landlocked mountainous country, with a poor infrastructure poses limitations to the broader possibilities for participation in the global value chain. Understanding these constraints and finding solutions to the problem would once again, help the country capture larger economic value from participation in the global value chain.

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Appendix 1: Interview Guide Hemp Retail/Wholesale/Export in Nepal

for use in master thesis in MSc International Business and Politics, Copenhagen Business School

Name of business:	Email:
Type of business:	Facebook:
Contact person:	Registered Business:
Phone number:	Date of establishment:
Address:	Anonymous:
	Date:

Supply

Do you buy final products, or do you manufacture in-house?

Where do you get your products/supplies?

In what region does the hemp originate? How is it harvested?

Do you pay in cash or by credit? If credit, what is the payment period?

Are there transportation costs?

How did you select your supplier? Would you consider switching?

Have you ever experienced a lack of supply or delayed delivery?

Are there enough product variations available?

Demand

Who are your customers? (Domestic, tourist, B2B)

What are your most popular products? Why?

What are your least popular products? Why?

When did you begin selling hemp products?

Why did you chose to start selling them?

Has there been a change in demand?

What other products compete with hemp products in your store? In the market?

How do you generate more sales of products?

How do customers generally react when they see the hemp products?

Do you ever get a negative response from customers who see these products?

Industry

Who are your competitors?

Do you cooperate with other retailers/exporters/wholesalers?

How could the products improve?

How would you evaluate the future potential of hemp products?

Would you ever buy hemp products for yourself?

How do you think sales could increase?

Have you ever had problems with the police/government because of the hemp products?

Do you have any other comments?

Products

Product (incl variations)	Buy price	Sell price	Qty sold (month)

Appendix 2: Overview of Informants

Type of Interview	Name in Paper	Date
Informal	Manufacturer 1	25 Sep 2017
Informal	Manufacturer 2	25 Sep 2017
Informal	Manufacturer 3	25 Sep 2017
Informal	Manufacturer 4	25 Sep 2017
Informal	Manufacturer 5	25 Sep 2017
Informal	Manufacturer 6	25 Sep 2017
Informal	Foreign Retailer 1	25 Sep 2017
Physical survey	Wholesaler 1	25 Sep 2017
Physical survey	Manufacturer 8	25 Sep 2017
Informal	Oil Manufacturer	6 October 2017
Informal	Manufacturer 9	8 October 2017
Informal	Wholesaler 2	8 October 2017
Informal	Wholesaler 3	8 October 2017
Informal	Wholesaler 4	8 October 2017
Informal	Manufacturer 10	8 October 2017
Informal	Wholesaler 5	8 October 2017
Informal	Manufacturer 11	8 October 2017
Informal	Trade and Export Promotion Office	9 October 2017
Informal	Seed Wholesaler	9 October 2017
Informal	Manufacturer 12	10 October 2017
Informal	Tea Retailer	17 October 2017
Informal	Head of NGO	11 November 2017
Informal	Wholesaler 6	19 November 2017
Informal	Wholesaler 7	19 November 2017
Informal	Middleman	20 November 2017
Informal	Manufacturer 13	
informal	Villager	22 November 2017
informal	Foreign Retailer 2	15 March 2018
informal	Industry Expert	10 September 2018
Online Survey	Foreign Retailer 3	07/01/2019

Online Survey	Foreign Retailer 4	07/01/2019
Online Survey	Foreign Retailer 5	08/01/2019
Online Survey	Foreign Retailer 6	08/01/2019
Online Survey	Foreign Retailer 7	08/01/2019
Online Survey	Foreign Retailer 8	08/01/2019
Online Survey	Foreign Retailer 9	08/01/2019
Online Survey	Foreign Retailer 10	08/01/2019
Online Survey	Foreign Retailer 11	09/01/2019
Online Survey	Foreign Retailer 12	09/01/2019
Online Survey	Foreign Retailer 13	13/01/2019
Online Survey	Foreign Retailer 14	22/01/2019

Online Survey	Foreign Retailer 15	24/01/2019
Online Survey	Foreign Retailer 16	24/01/2019
Online Survey	Foreign Retailer 17	25/01/2019
Online Survey	Foreign Retailer 18	28/01/2019

Appendix 3: Survey Questions for international retailers

Question 1: Company Name

Question 2: Type of Business

[retail, online retail, wholesale, online wholesale, export]

Question 3: Country of Residence

Question 4: How many years have you been selling hemp products from Nepal?

Questions 5: Has there been a change in demand for hemp products over time?

[open question]

Question 6: What Nepalese hemp products do you sell?

[clothing, backpack and satchel bags, accessories, towels, home decor, other]

Question 7: Do you sell products from other countries than Nepal?

[Yes/No]

Question 8: Is there a difference between hemp products and those from other countries?

[Yes/No]

Question 9: If yes, please specify.

Question 10: At what stage of processing fo you buy hemp?

[fiber, yarn, textile, finished product]

Question 11: If relevant, which products do you manufacture? Which country is it done in?

Question 12: Where is your supplier located?

[Capital, Large City, Small town, Village]

Question 13: How did you select a supplier?

[I did research myself, someone recommended the supplier, they came to me, other]

Question 14: Please rank the following statements. 1= completely disagree and 5= completely agree

- There are a lot of suppliers available in Nepal
- The suppliers generally produce high quality products
- Trust and previous experience is needed before I will do business with a supplier.
- My supplier is the only adequate option.

Question 15: Would you ever consider switching suppliers?

[open question]

Question 16: What type of harvested hemp does your supplier use?

[farm grown, forest gathering, don't know, other]

Question 17: Do you pay Cash or Credit?

[Cash, Credit, Both]

Question 18: How do you transport the products out of Nepal?

[Open Question]

Question 19: Have you ever experienced a lack of supply or delayed delivery? Select which apply

[lack of supply, delayed delivery, both, neither, other]

Question 20: Do you find that buying/selling hemp in Nepal is legally restricted?

[Open answer]

Question 21: Is there currently something that customers want that you cannot provide?

[open answer]

Question 22: What are the most popular hemp products you sell?

[open answer]

Question 23: Have you ever encountered legal issues when dealing with hemp products, in Nepal or Domestically?

[open answer]

Question 24: Do you have any final comments about working with Nepalese hemp?

[open answer]