

**Institutional Entrepreneurs Co-creating New Ventures and New Industries: The Case of  
Manitoba Hemp Food Entrepreneurs and the Hemp Food Industry**

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A thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the requirements of the degree of

MASTER OF SCIENCE

Department of Business Administration

Asper School of Business

University of Manitoba

Winnipeg

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## **I. Abstract**

This thesis explores the key processes involved in entrepreneurs co-creating a new industry while developing their new venture. To guide our analysis, this thesis will draw on institutional theory, which has increasingly provided important and relevant insights for entrepreneurial research. Specifically, the process of gaining legitimacy is seen as one of the fundamental steps for institutional entrepreneurs. This exploratory research will take an inductive qualitative design and draw on an in-depth case study of the Manitoba hemp food industry, from which a group of entrepreneurs co-created the hemp food industry in order to develop their own hemp food business. Based on the extant literature and analysis of data from the case, this thesis proposes the industry legitimation model and three propositions based on the hemp food industry legalization and commercialization. The model, among other things, proposes gaining cognitive legitimacy as the foundational step in creating a new industry.

## **II. Acknowledgements**

First, I would like to thank my supervisor Dr. Nathan Greidanus and my advisory committee Dr. Wenlong Yuan, Dr. Srimantoorao. S. Appadoo and Alphonsus Utioh for the guidance and support. Your guidance, encouragement and support were integral to this work. I would also like to thank all the others at the University of Manitoba who helped me along the way throughout this process.

Second, I appreciated the overwhelming generosity from everyone who participated in this research. Much gratitude to Dr. Nathan Greidanus and Alphonsus Utioh, who helped me to connect with many important resources from hemp food industry for this research.

Finally, I would like to thank the following organizations for providing the very valuable information and resources in this research: The World Trade Centre Winnipeg, The Food Development Centre, The University of Manitoba, and The Hemp Trade Alliance Canada.

### III. Table of Contents

I. Abstract.....	II
II. Acknowledgements .....	III
III. Table of Contents .....	IV
IV. List of tables .....	VI
<b>1. Introduction .....</b>	<b>1</b>
1.1. Research objectives .....	2
1.2. Definitions: Plant characteristics .....	4
1.3. The uniqueness of the case .....	4
<b>2. Literature review .....</b>	<b>6</b>
2.1. Institutional theory .....	6
2.2. Entrepreneurial theory .....	7
2.3. Legitimacy theory .....	9
2.4. Legitimation strategy theory.....	14
<b>3. Research methods .....</b>	<b>18</b>
3.1. Data sources .....	19
3.2. Analytic strategy .....	24
<b>4. A brief history of industry hemp .....</b>	<b>27</b>
<b>4.1. Hemp in U.S.....</b>	<b>30</b>
4.1.1. Hemp in early days .....	30
4.1.2. Hemp in 19th & 20th century.....	31
4.1.3. Prohibition Round I.....	33
4.1.4. Hemp in WWII .....	33
4.1.5. Prohibition round II .....	34
4.1.6. Hemp today in U.S.....	35
<b>4.2. Hemp in the UK.....</b>	<b>37</b>
4.2.1. Hemp in the early days.....	37
4.2.2. Hemp prohibition in the UK.....	40
4.2.3. Hemp in UK from 1993 .....	40
<b>5. Co-creation of the hemp food opportunity and hemp food industry in Canada.....</b>	<b>42</b>
<b>5.1. Hemp foods legalization in Canada .....</b>	<b>42</b>
<b>5.2. Manitoba hemp food entrepreneurs and advocates in legalizing hemp food in Canada .....</b>	<b>44</b>
5.2.1. Hemp Food Entrepreneurs begin to advocate the legalization of hemp industry by allying stakeholders together and gaining public supports from the community .....	45
5.2.2. Hemp Food Entrepreneurs continue to advocate the legalization of hemp industry by gaining government supports and conducting and producing scientific evidence.....	47
<b>5.3. The building of the hemp food business and hemp food industry in Manitoba Canada .....</b>	<b>49</b>

5.3.1. Hemp Food Entrepreneurs Building the Momentum of Hemp Food Industry by Educating the Public about the Hemp Food Products .....	50
5.3.2. Hemp Food Entrepreneur Promoting Hemp Foods by Sharing the Personal Story about Hemp Foods to the Public.....	51
5.3.3. Hemp Food Entrepreneurs Gain Normative and Regulatory Legitimacy by Pursuing Industrial Certifications and Developing Partnerships with Institutions and Government Agencies	51
5.3.4. Hemp Food Entrepreneurs Continues to Gain Cognitive and Normative Legitimacy by Establishing Canadian Hemp Trade Alliance .....	53
<b>5.4. The legitimacy and legitimation strategy entrepreneur used in establishing hemp food industry.....</b>	<b>55</b>
<b>6. Conclusion and discussion .....</b>	<b>69</b>
6.1. Limitation and Future research .....	72
6.2. Conclusion .....	73
<b>7. Reference .....</b>	<b>75</b>
<b>8. Appendices.....</b>	<b>85</b>
Appendix A: Hemp in China .....	85
Appendix B: Secondary data sources .....	92

#### **IV. List of tables**

Table 2-1. Sociopolitical regulatory legitimacy

Table 2-2. Socio-political normative legitimacy

Table 2-3. Cognitive legitimacy

Table 3-1. Primary data sources

Table 3-2. Interview protocol

Diagram 3-3. Tree root diagram

Table 5-1. Milestones that affect the development of hemp food industry

Table 5-2. Legitimation strategy table

Diagram 5-3. Legitimation model

## **1. Introduction**

Hemp is an ancient crop and is one of the earliest cultivated crops, which has been grown for fibers and seeds for over 8000 years (History of Hemp, 2013). Hemp has been used for many different applications and products, such as textile, nutritional oil and food and body care products. In Canada, industrial hemp contains less than 0.3%THC, which means it has no psychotropic value. Due to Hemp's shared label with Cannabis, and its stigma associated with Cannabis as a drug, the hemp industry has been perceived as controversial for many years. The Government of Canada decided to relegalize the hemp food industry and provide the legitimacy for developing hemp food as a viable industry in North America in 1997, as a result of hard working advocates in various parties, such as the government, entrepreneurs and institutions. Entrepreneurs in Manitoba pioneered and created a unique industry with the government based initially on hemp seed and oil. Over years entrepreneurs have been working together to meet challenges through industry collaboration, and organizing stakeholders and organizations, such as the Canadian Hemp Trade Alliance and farmers, to collaboratively build a new industry. Further support was required in order to advance the hemp food industry. From a theoretical perspective, institutional entrepreneurship and the role of legitimacy and legitimation techniques help explain the development of the hemp food industry in Manitoba, Canada. The following thesis draws on an in-depth case study, which explores different groups of stakeholders in hemp food industry. Research methods include formal interviews, document analysis, and literature reviews. Interviews were conducted with representatives from various parties including farmers, hemp trade alliances, government institutions and hemp food businesses.

The main purpose of this study is to develop a model for future entrepreneurs who are looking into development or building an industry, so that they can learn from the hemp industry and refer to the proposed model in this thesis. In addition, institutional theory has been widely used for institutional entrepreneurship research; however, conducting a holistic case analysis for one industry from the beginning of legalization to communalization has not yet taken place. Thirdly, while legitimacy and legitimation strategy theories have been proven highly useful, the application of the theories has reached a point where there is a need to establish a clear understanding of its wide-ranging application from the industry to the practitioner's point of view. This thesis provides real examples based on the case study to show how these theories are applied in real scenarios.

### **1.1. Research objectives**

This thesis presents my efforts to address two related research questions:

- a. How institutional entrepreneurs practically use certain legitimization strategies to gain legitimacies and, in turn, create a new industry?
- b. How different kinds of legitimacy play roles in the process of industry creation, legalization and commercialization?

To answer the listed questions, I draw on an in-depth case study of the hemp food industry. Analysis of this case study shows how entrepreneurs worked together to lead the evolution of the hemp food industry and explore how entrepreneurs developed the hemp food industry by overcoming social misconceptions, building showcases and legalizing the hemp food industry. In addition, the thesis discusses how different kinds of legitimacy play roles in the process of legalization and commercialization, which this thesis refers to as gaining legitimacy

via various strategies. Stakeholder's inputs provide a comprehensive picture of how entrepreneurs used various strategies to gain legitimacies from various sources. This case study fully brings up the process of how entrepreneurs work together to establish a new industry. Future entrepreneurs looking to build an industry upon a business idea can learn from the strategies that created a hemp food movement and industry, as discussed in this thesis. Thus, this thesis helps to fill the gap found in the field of institutional entrepreneurship, specifically focusing on how institutional entrepreneurs practically use certain strategies to gain legitimacies and, in turn, create a new industry.

This thesis fills the literature gap by testing the legitimacy theory empirically based on a real industry case (Zimmerman & Zeitz, 2002). In addition, the thesis identifies the relationships of three kinds of legitimacy during the hemp food industry development (Zimmerman & Zeitz, 2002). Thirdly, the condition under which legitimation strategy is most effective to acquire legitimation and build industry is largely unknown as well (Zimmerman & Zeitz, 2002). This thesis provides good examples on how entrepreneurs employed different legitimation strategies to acquire different types of legitimacy. Furthermore, this thesis has proved that institutional entrepreneurs are aware of gaining legitimacy as one of the key factors to their business success, which fills one identified research need to assess the extent to which entrepreneurs are aware of "legitimacy" as a factor in their success. Lastly, there is a need to use industry case study for doing process research in entrepreneurship (Alvarez, Young & Woolley, 2014). The thesis extends the theory on legitimacy and institutional work by highlighting the actions and strategies institutional entrepreneur used to create the hemp food industry.

## **1.2. Definitions: Plant characteristics**

Industrial hemp and marijuana are different plants that are derived from *Cannabis Sativa* L. In fact, they are completely distinguished in nature no matter how often they are associated with each and how identical they are from the appearance. The psychoactive ingredient delta-9-tetrahydrocannabinol (THC) is the content that defines the difference. Research data indicates marijuana contains 3-15% THC on a dry-weight basis, while industrial hemp only contains less than 1% (Vantreese, 1997).

Cultivated industrial hemp is harvested for its fiber, seed and other purposes. It is a long-fiber plant, similar to flax and jute, ranging in height from 1 to 6 meter. It has a rigid, herbaceous stalk with a hollow core, surrounded by an inner pith layer of short woody fibers called hurds, and an outer phloem or parenchyma layer where the bast fibers are primarily found (Kraenzel et al, 1998). The hurd and bast fibers can be both proceed for application for the mankind's daily activity. Hemp crop can be cultivated all year round. Usually it is dioecious, with the species divided into male and female plants; the female plants generate seeds. Monoecious (unisex) hemp species have been developed through breeding and selection in a number of countries (Ehrensing, Dempsey).

## **1.3. The uniqueness of the case**

We chose to study the case of Manitoba Hemp food industry in terms of the legalization and commercialization process mainly for three reasons. First, the hemp food industry is not only a nascent market but was also an illegal market before being legalized. A nascent market is featured by undefined or fleeting industry structure (Eisenhardt, 1989a; Rindova & Fombrun, 2001), blurred or missing product definitions (Hargadon & Douglas, 2001), and lack of a

dominant logic to guide actions (Kaplan & Tripsas, 2008; Porac, Ventresca, & Mishina, 2002). Thus, nascent markets can be defined as a new market with a relatively unstructured setting and loose regulations. However, the structure of the hemp food industry was unclear and undefined, and was an illegal market for ventures to operate. Thus, entrepreneurs had to work beyond traditional institutional entrepreneur's routine. The entrepreneurs of hemp food industry not only had to establish the institutional norms or common standard, which was examined by Raghu and Sanjay's thesis about the case of sun Microsystems and Java in 2002 or a co-creation story of the king crab industry examined by Alvarez, Young and Woolley in 2015, but also went through the process of legalizing the hemp food industry first, before commercializing it. This has not been studied in the current literature yet.

Second, early entrepreneurs who developed hemp food industry not only successfully legalized the industry, but also cultivated Manitoba to be the largest hemp food industry in the world. The case of the Manitoba hemp food industry perfectly fits into the definition of entrepreneur broadly and institutional entrepreneur specifically.

Third, in emerging markets, pioneering entrepreneurs are motivated to change the institutional environment in ways that enhance their interests (Scott, 1987) and help them restrain and manage entering rivals (Hamel and Prehalad, 1994). However, in the Manitoba Hemp food industry case, entrepreneurs have to organize all the parties who are interested in manufacturing hemp, to work together in order to legalize the hemp food industry. Thus, instead of deterring and managing competitors, early entrepreneurs had to work together to gain necessary legitimacy in the early stage.

## **2. Literature review**

### **2.1. Institutional theory**

Institutional theory is a useful lens for understanding the role entrepreneurs may play in creating new industries. Based on the definition, institutions are regulatory, normative, and cultural cognitive factors, that together with associated activities and resources, provide stability and significance to social life (Scott, 2014:46). Generally, institutional theory is about how different groups of organizations better secure their positions and legitimacy by restricting the regulations and norms of institutional environment (Meyer & Rowan, 1991; Scott, 2007). As institutional theory suggests that behaviours, in general, have been patterned and reproduced over time because social norms become taken for granted. Thus, one of the key assumptions of institutional theory is that organizations and individuals are expected to follow the social norms (Meyer & Rowan).

In addition, as institutional theory developed, much of the work focused upon the organizational field and study. Organizational fields are the combination of organizations and people working for it; they are defined and stabilized its boundaries, identities, and interactions by shared institutional logics (Scott, 2000). Institutional logics are taken for granted, such as laws, social expectations, specifying the boundaries of a field, and the role of identities and appropriate organizational forms of its constituent communities (Friedland & Alford, 1991; Lawrence, 1999; Rao, Monin, & Durand, 2003; Thornton, 2004). Thus, the institutional environment defines and limits entrepreneurial opportunities and are the factors that have been widely recognized by new organizations (Ahlstrom, 1990, Gnyawali & Fogel, 1994; Hwang & Powell, 2005). Therefore, based on the institutional theory, entrepreneurs are constrained and shaped by existing rules and norms, which are taken for granted. However, institutional logics

and structures never remain unchanged (Royston & Roy, 2006). Even in highly matured fields, stability is only in the short term (Hoffman, 1999). Thus, this thesis will study how entrepreneurs, as the organized actors, envision a new industry and institutional logic.

## **2.2. Entrepreneurial theory**

Growing attention has been paid to the relationship between institution evolution and entrepreneurial development (Aldrich and Fiol, 1994; Greenwood and Suddaby, 2006; Hardy and Maguire, 2008). There is increasing consensus among entrepreneurs over the point that the formation of opportunities is not just determined by external factors such as market or policy, but instead, the result of the well designed and purposed action planned by the entrepreneurs. (Alvarez and Barney, 2007; Alvarez et al., 2013; Buenstorf, 2007; Dimov, 2010; Garud and Karnoe, 2003; Gregoire et al., 2010; Sarasvathy, 2001). These actions interact with other factors, such as external environment, entrepreneurs and stakeholders, and accumulate over time into a profitable opportunity. Profit-seeking entrepreneurs need to disrupt the take-for-granted assumptions and institutional logics in order to create opportunities. These entrepreneurs have to build opportunities while defining new institutional regulations and legitimacies to manage the operation, production and consumption related to these opportunities (Bruton et al., 2010; Santos and Eisenhardt, 2009). During the opportunity creating process, entrepreneurs may need to work with other stakeholders in the industry to create new relationships with existing stakeholders and create new patterns of interactions among consumers and share set of meaning among others (Aldrich and Fiol, 1994; Hargadon and Douglas, 2001; Obstfeld, 2012; Santos and Eisenhardt, 2009). By continually acting on these new shared meanings and creating new patterns, the new

business opportunity may accumulate over time into new industry ((Aldrich and Fiol, 1994; Garud et al., 2002; Jepperson, 1991; Lawrence and Suddaby, 2006).

This type of entrepreneur is labeled as being an institutional entrepreneur. In this thesis, institutional entrepreneur is defined as the entrepreneur, who creates, legitimates and defines a whole new industry that ties the functioning of disparate sets of social means and institutions together (DiMaggio, 1988; Scott 1994). This literature uses the term of institutional entrepreneur to reintroduce agency, and thus change, into existing institutional environment, social norm and culture(Aldrich and Fiol, 1994; Garud et al., 2007; Greenwood and Suddaby, 2006; Navis and Glynn, 2010; Santos and Eisenhardt, 2009). The foundation of this work is from DiMaggio (1988) where he introduced the notion of agency into institutional theory by introducing the term institutional entrepreneurship. Institutional entrepreneurs, as the organizing actors, envision the new institutions as a means of advancing interests they highly value yet those that are suppressed by extant logic (DiMaggio, 1988). Unlike traditional institutional theory's focus on institutional expectation and logic on people to conform and stabilize the industry (Scott 2011), institutional entrepreneurs focus on changes through purposeful action and plan (DiMaggio, 1988; Fligstein, 1997; Greenwood and Suddaby, 2006; Maguire et al., 2004). These institutional entrepreneurs are pioneers, who are actively looking for the opportunity of changing the broader social system, creating a new industry or establishing a new ecosystem through changing stakeholders within the social system such as political, economic, legal and cultural institutions (Westley and Antadze, 2010). Thus, institutional entrepreneurs are interest driven, aware and well planned (Royston & Roy, 2006). In this way, the notion of institutional entrepreneurship runs against the taken for granted notion of institutional theory.

Thus, both institutional theory and entrepreneurial theory can only explain one aspect of the story about how entrepreneurs interact with the existing environment. Prior literatures have explained the importance of entrepreneurs to institutionalize the industry and how entrepreneurs constructed organizational boundaries to dominate nascent markets. However, the key process for entrepreneurs to create and legalize a new industry is little known in the field. In addition, how to create an industry in a not legalized field and what forces and strategies will particularly be critical for entrepreneurs to create an industry are underexplored.

### **2.3. Legitimacy theory**

This thesis fills the literature gap between how institutional entrepreneur practically uses certain strategies to gain legitimacies and what kinds of legitimacy are more critical at the beginning of the industry creation by identifying the key forces for entrepreneurs to create an industry, which we define here is legitimacy. In addition, there are two more factors, related to entrepreneurs that may be critical for them to gain legitimacy. The first factor is the capability of entrepreneurs to gain support from relevant stakeholders. The second factor is the capability of entrepreneurs to organize the social resources in a meaningful way.

The importance of gaining legitimacy has been widely recognized in entrepreneurial field. Legitimacy provides a guide for funders' decision making, motivates investors, affects new firm survival and fosters the firm growth, based on these, legitimacy can be viewed as a resource that is important for gaining other resources (Zimmerman & Zeitz, 2002). Legitimacy is a social judgement of acceptance, appropriateness and desirability, enables organizations to grow and acquire other resources (Monica & Gerald, 2002). Furthermore, Delmar and Shane (2004) argued the importance of new venture legitimacy for two key reasons: Firstly, legitimacy may

have the greatest impact on the survival of the enterprise during the initial phase of its lifetime as company. At this point, relies more on the perceptions and expectations of the outside stakeholders than its actual financial performance. Secondly, the proposal of legitimacy modifies the terms and conditions upon which the new enterprise actor may have business transactions with other business actors. For example, suppliers may offer a better financial term to a new venture that they perceive as more legitimated than the one that they perceive as less legitimate.

Legitimacy is also defined as congruency between the values, norms, and expectations of society and the activities (Ashforth & Gibbs, 1990; Dowling & Pfeffer, 1975). The foundation of this work is found in Monica and Gerald (2002), where they argue that legitimacy is a crucial resource for a new venture to grow and gain other resources. In addition, Scott in 1995 states that legitimacy is not just another type of resource but “a condition reflecting cultural alignment, normative support or consonance with relevant rules or laws” (Scott, 1995a: 45). Legitimacy is a key driver that influences new venture growth since it is regarded as a resource-a necessity for acquisition of other resources and for survival (Montica &Gerald. 2002). In addition, legitimacy provides a basis for decision-making as well by signalling that the organization is generally applied and accepted by the social environment (Montica, Gerald. 2002).

The new venture literatures suggest that several organizational activities that are needed for new venture survival: namely, increasing legitimacy, establishing relationship, and recombining resources or establishing organization. Legitimacy is also a relationship between the organization and the social environment, by which organizations are enforced. Organizations have to be able to work with stakeholders and competently transform inputs into outputs in a way the market wants and needs. Thus, new enterprises need to find a way to gain resources from their operation environment. This thesis aims to show how institutional entrepreneurs act in such

an environment and gain legitimacy in their belief and feeling that the venture needs to launch and succeed. The key point is that legitimacy is particularly important for institutional entrepreneurs, as a resource due to the business field that is not legalized yet as in the case of the hemp food industry. And legitimacy is the key resource for institutional entrepreneurs in general to acquire other resources and business development.

In addition, different kinds of legitimacy may play different roles, when institutional entrepreneurs build their new ventures and industries. Hunt and Aldrich (1996) provided a framework that includes three different kinds of legitimacy, which are regulatory, normative, and cognitive. In addition, Scott (1995a) outlined a similar framework that includes three kinds of legitimacy from the external environment, which are regulatory, normative, and cognitive. The following section will review these types of legitimacy, which later will be integrated into a proposed model.

Regulatory legitimacy means if a venture is accepted as appropriate and right by the key stakeholders, the general public and government officials (Aldrich & Fiol, 1994). It is derived from regulations, rules, standards, and expectations initiated by governments, credentialing associations, professional bodies, and even powerful organizations (such as some manufacturing organizations that require certificates from their suppliers) (Zimmerman & Zeitz, 2002).

Regulatory legitimacy indicates that a proposed venture operates consistently with law and regulations. This kind of legitimacy should be acquired in the initial stages of new enterprise formation because it can facilitate the attraction of resources (Zimmerman & Zeitz, 2002).

Stakeholders of organization acquire legitimacy through addressing rules, regulations, standards, and expectations (Scott, 1995a; Zimmerman & Zeitz, 2002). For example, by registration with

the Securities and Exchange Commission (SEC), a new venture gains legitimacy to raise capital by selling stock on the public market (Zimmerman & Zeitz, 2002).

Table 2-1 provides some examples and indicators of regulatory legitimacy.

Type of legitimacy	Indicators	Examples
Regulatory legitimacy	<ul style="list-style-type: none"> <li>• Rules</li> <li>• Regulations</li> <li>• Standards</li> <li>• Expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Consistency with laws</li> <li>• Filing articles of incorporation</li> <li>• Registration with the Securities and Exchange Commission (SEC)</li> <li>• Obtaining professional certification</li> </ul>

Normative legitimacy is derived either from the norms and values of society or from a level of the normative context relevant to the new venture (Zimmerman & Zeitz, 2002). In this kind of legitimacy, organizations signal the norms and values such as profitability, fair treatment to employees, endorsement, and networks. Addressing norms and values held by resource providers are the keys, for new ventures, to access the resources (Zimmerman & Zeitz, 2002) while networks and social ties are another important method of normative legitimacy creation (Aldrich & Fiol, 1994).

Table 2-2 provides some examples and indicators of normative legitimacy.

Type of legitimacy	Indicators	Examples
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Normative legitimacy	<ul style="list-style-type: none"> <li>• Profitability</li> <li>• Fair treatment to employees</li> <li>• Endorsement</li> <li>• Networks</li> <li>• Embeddedness</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent financial positive norms such as profitability</li> <li>• Positive press coverage</li> <li>• Formalizing a network tie with top executives from relevant organizations</li> </ul>
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The diffusion of knowledge about a new venture is referred as cognitive legitimacy (Aldrich & Fiol, 1994). Cognitive legitimacy can be derived from addressing “widely held beliefs and taken-for-granted assumptions that provide a framework for everyday routines, as well as the more specialized, explicit and codified knowledge and belief systems promulgated by various professional and scientific bodies”. (Scott, 1994: 81). By creating cognitive legitimacy, a new venture demonstrates its acceptability and desirability by implementing methods, models, practices, knowledge, ideas, and concepts and so on that are widely accepted in its field of operation (Aldrich & Fiol, 1994; Scott, 1995a; Shusman, 1995; Zimmerman & Zeitz, 2002).

Table 2-3 provides some examples and indicators of cognitive legitimacy.

Type of legitimacy	Indicators	Examples
Cognitive legitimacy	Implementing acceptable and desirable methods, models, practices, knowledge, ideas, concepts	<ul style="list-style-type: none"> <li>• Qualified founder</li> <li>• Educated top management team</li> </ul>

In addition, work by Greidanus, N.S. & Akgahri, M. (2013, June) develops the concept of hedonic legitimation by extending the review of the legitimacy literature and draws on the consumer behaviour literature' notion of hedonic value. Perceived hedonic value of a product is an important measure of exploring the variation in the consumer behaviour (Homer, 2008). In addition, individual attitudes are formed from affective and antecedent components (Edwards, 2008). The importance of hedonic associations is also found in research on the antecedents of attitudes. Edwards (1990) suggests that affect-based and cognition-based attitudes can be distinguished as a function of the dominance of affect during attitude acquisition. Thus, Hedonic values effectively provide some kind of acceptance and desirability for new products and services. This is particularly important for institutional entrepreneurship research because institutional entrepreneurs create a new industry by inventing new products and services. Hedonic values can effectively provide some kind of support for entrepreneurs to gain legitimacy from the public.

#### **2.4. Legitimation strategy theory**

Given the importance of legitimacy for the creation of a new industry and venture, we need to understand how institutional entrepreneurs acquire legitimacy in developing a new field, market or industry. Classic institutional literature suggested that by utilizing certain strategies, new ventures can enhance different types of legitimacy (Aldrick & Fiol, 1994). A newer approach to gain legitimacy suggests that organizations can change the type and amount of legitimacy they possess by employing certain strategic choice (Deeds et al., 1997; Scott, 1995a; Suchman, 1995). Zimmerman and Zeitz also argue there are at least two kinds of actions for new ventures to acquire legitimacy, attempts to change itself or change its environment

(Zimmerman & Zeitz, 2002). Furthermore, there are four basic legitimation strategies for new ventures to gain legitimacy (Zimmerman & Zeitz, 2002). The four strategies are conformance, selection, manipulation and creation respectively. The first three strategies - conformance, selection and manipulation, are proposed by Suchman (1995). Monica and Gerald (2002) proposed the fourth strategy creation. These strategies vary in terms of the changes organizations make external to it. Conformance involves the least, whereas creation involves the most external changes. In addition, this thesis also further develops a fifth legitimation strategy proposed by Greidanus, N.S. & Akgahri, M. (2013) that of hedonic legitimation strategy, which is used to explain the emotional attributes to gain legitimacy. The following section explains each legitimation strategy briefly.

Conformance, requires ventures to follow the rules, is basically seeking legitimacy by achieving conformity with the expectations and demands from the existing social system and structure in which the organization is currently positioned (Dimaggio & Powell, 1983; Meyer & Rowan, 1977; Mouritsen & Skaerbaek, 1995; Suchman, 1995). Organizations acquire legitimacy by following the rules and social norms.

Selection is a more proactive legitimation strategy than conformance. Organizations, who use selection strategy, may strategically choose an environment that is consistent with and beneficial to the new venture. However, organizations still use conformity as a strategy to gain legitimacy in whichever environment they choose to locate. For example, a new venture can choose to locate in a favourable geographic location where similar scripts, rules, norms, values and models are addressed by other organizations to provide legitimacy to a new venture.

The third tactic of manipulation is to make a positive change in existing environment in order to achieve consistency between the organization and its environment so as to gain

legitimacy. According to Suchman, manipulation involves pre-emptive intervention “to develop bases of support specifically tailored to the distinctive needs of the organization” (1995:591). An example of new venture manipulation is that some new biotechnology ventures manipulated the norm that a good investment should generate profit before or by the time of the IPO (initial public offering) in order to raise enough capital because many biotech ventures did not have a record of profit at their IPO (Zimmerman & Zeitz, 2002). Thus, manipulation involves more changes to the environment than applying conformance and selection strategy. Other manipulation strategies introduced in the thesis include partnering with successful, well-established organizations or institutions and associate with other new ventures to organize an industry association.

Creation is the fourth strategy to gain legitimacy. This fourth strategy is a particularly important concept for institutional entrepreneur research because institutional entrepreneurship refers to proactive creation of norms, values and beliefs, expectations, model patterns of behaviour, networks or frames of reference consistent with an organization’s identity and practice and then getting others to accept these norms values and so forth (Aldrich & Fiol, 1994; Borum & Westenholz, 1995; DiMaggio, 1988; Rao, 1994; Suchman, 1995). Creation strategy involves developing something that did not exist in the environment. As discussed earlier, institutional entrepreneurs into new industries involve different domains of operations that lack existing scripts, rules, norms, values and models (Aldrich & Fiol, 1994). Thus for institutional entrepreneurs to gain legitimacy, they need to act as a pioneer and establish the foundations of legitimacy and often address the idiosyncratic needs and to provide access to resources. Furthermore, entrepreneurs can even create government regulation and rules sometimes (Zimmerman & Zeitz, 2002). One example is that Internet retailers lobbied for federal legislation

to establish sale tax-exempt interstate Internet sales, which benefited them by increasing sales revenue (Zimmerman & Zeitz, 2002).

The hedonic legitimacy is a tactic that can be used to enhance the effectiveness of the four-legitimation strategies just discussed. Hedonic legitimacy as the sense of acceptance and desirability, which is driven from emotion and feeling, can be an important tactic for entrepreneurs to use for gaining legitimacy, especially for institutional entrepreneurs. Hedonic legitimacy can be related to the intuitive trust and sense of acceptance, which influences the decision of governors, stakeholders, customers and financiers.

This thesis shows institutional entrepreneurs use different kinds of strategies and actions to gain different types of legitimacy. Thus, this thesis closes the literature gap in the field of institutional entrepreneurship about the process that institutional entrepreneurs practise to gain legitimacies and, in turn, creates a new industry. This thesis develops a model based on the case study about how institutional entrepreneurs strategically manage the available resources from the social environment and gain different kinds of legitimacy in the early stage in order to create a new industry.

### **3. Research methods**

The key research question for the study is to understand how entrepreneurs create an industry and explore what kinds of legitimacy will particularly be important for entrepreneurs to create an industry. The research method we use here fills a gap in the literature by identifying the key types of legitimacy, strategies and processes, entrepreneurs used to create a new industry. In addition, by applying an in-depth historical case study method, this thesis investigates how the mentioned factors impact the entrepreneurial capability of establishing a new institution empirically (Eisenhardt, 1989; Tripsas and Gavetti, 2000; Walsh and Bartunek, 2011; Yin, 2009).

When studying the origins of industry creation and institutional entrepreneurs, historical case study methods can provide great richness of the entrepreneurial process and evolution to scholars (Bresman, 2013; Tsoukas, 1989; Van de Ven, 2007). The creation of new industries and companies evolves over time, not in a static moment. It is particularly useful to use the longitudinal historical case data to study the process of institutional entrepreneurs creating a new industry (Bresman, 2013; Siggelkow, 2007). Using this method, researchers are able to build theory based on the historical context and sequencing of events and explain how the industry evolved during the process (Van de Ven, 2007). Also, they are able to come up with a model to explain the process by refining existing theories and relationships (Lee et al., 1999; Locke, 2001; Tsoukas, 1989).

Scholars often propose and articulate propositions by accommodating existing theory with a single in-depth critical case study. These propositions are believed to be reliable, and challenge or extend theory (Bansal and Roth, 2000; Eisenhardt and Graebner, 2007; Yin, 2009). The strength of this theory building approach is that it provides a comprehensive picture of the

process by taking the longitudinal historical information and accommodating existing theory on institutional entrepreneurship.

The thesis uses propositions based on the strategies the institutional entrepreneurs used to create a new industry during the opportunity creation process based on previous theoretical work on institutions, entrepreneurs and legitimacy. To study how legitimacy plays a role during the process of institutional entrepreneurs creating a new industry, this thesis uses the extreme case of Manitoba Hemp. This case is extreme since it is an example of not only a nascent market but also an illegal industry sector that requires entrepreneurs to promote, lobby and ally with stakeholders in the industry, to legalize and commercialize it. Extreme cases tend to better facilitate theory building because the dynamic being examined tend to be more visible than other research methodologies (Pratt et al., 2006). In this case, entrepreneurs had to work beyond traditional institutional entrepreneurs' routine. They had not only to establish the institutional norms or common standard, but also went through the process of legalizing the hemp food industry first, before institutionalizing and commercializing the hemp food industry.

### **3.1. Data sources**

When studying and exploring the process of business development and co-creating the industry, scholars are able to gain abundant information and inspiration by examining the context of the entrepreneurial process via a historical case study (Bresman, 2013; Parmigiani and Howard-Grenville, 2011; Tsoukas, 1989; Van de Ven, 2007). By applying this approach, I will be able to analysis the overall hemp food industry development process based on the sequencing of events that demonstrated the evolvement of opportunity over time (Van de Ven, 2007).

The abundant information and unique story makes Manitoba hemp food industry the ideal case for in-depth study. In the Manitoba hemp food industry case, many entrepreneurs founded their companies around 1998, the main purpose was manufacturing and selling the hemp products to the US and Canada. The founders of these companies are a typical significant case to study in terms of institutional entrepreneurship topic. Manitoba Harvest, Hemp oil Canada, Cansat Processor, Fisher Seeds, Food Development Centre, Manitoba Trade and Investment, Agriculture Manitoba and Canada Hemp Trade Alliance, and Manitoba Food and Beverage Association are some of the major stakeholders in the Manitoba hemp food industry and they are not only heavily involved in legalizing the industry for Canada but also leading the hemp industry to prosperity in terms of educating local farmer to plant hemp, setting up the manufacturing standard, conducting hemp related research, promoting hemp industry and foods internationally and educating the hemp products to hemp consumers. In addition, the case of Manitoba hemp provides a good setting to study the whole process of legalization and commercialization due to the sufficient data we drew from both government and entrepreneurs. The case of Manitoba hemp food industry accommodates a useful context to study and exploit due to the richness of the available data including both primary and secondary data.

The data sources of this study mainly come from the primary data, which we collected from interviews with defined interviewees. Table 3-1 lists all the interviewees we interviewed for the research. The interviews are between 20 to 60 minutes in length, and both notes and voice recordings were taken throughout each interview. Interviews with key members of the Manitoba hemp food industry include the founder and president of Hemp Oil Canada, the co-founder and CEO of Manitoba Harvest, the founder and president of CanSat Processor and the president of Fisher Seeds. These interviews were semi-structured and lasted between twenty to sixty minutes.

The topics of these interviews were centered on the start-up of each business and early works on legalization, commercialization and institutionalization of the business and industry. In total, 19 interviewees participated in the interviews. Several open-end questions were asked during the interview. Some of the main questions that were asked during the interviews are organized into five different sections, which are shown in Table 3-3.

Additional to the primary data, secondary data about the hemp food industry were searched from several search engine such as the University of Manitoba online libraries and the Google Scholar. The data search spans from the year of 1993 to 2010. By drawing on both interviews from different stakeholders around the hemp food industry and secondary data, we will increase validity of our data analysis and theoretical propositions (Elsenhardt, 1989).

Secondary data sources of this study are (1) archived interviews with the founders and Presidents of some of the earliest and key hemp food and processing companies established around 1998, when the Government of Canada legalized the hemp food industry to capture the origins of the industry development. (2) Archived interviews with other key stakeholders around the hemp food industry including the Manitoba Food Development Centre, Agriculture Canada and Agri-Food Canada, Canadian Hemp Trade Alliance, World Trade Centre Winnipeg, Manitoba Trade and Alliance and Manitoba Agriculture to capture the origins of the industry establishment and ongoing development. (3) Company documents, public information of hemp foods and product development. (4) Newspapers and periodical articles.

Data sources also include hemp industry articles from 1990 to 2017. These articles provide detailed information about the history of the hemp industry, including factors helped to legalize the hemp food industry, recent hemp food industry development and the strategies Manitoba hemp organizations used for developing the hemp food industry.

Additional data sources include online data from different sources such as corporate websites, Manitoba Agriculture, Canadian Hemp Trade Alliance, Canadian Seed Grower Association and Organic Producers Association of Manitoba. This information can be complementary with the information received from interviews. Utilizing different data sources can increase the reliability of the study (Singleton and Straits, 2005), since the “multiple sources of evidence essentially provide multiple measures of the same phenomenon” (Yin, 2009: 116-117). The secondary data sources are summarized as Appendix B.

Table 3-1 Primary data Sources

Name	Company and Role
I1	CanSat Processors Ltd, President, Founder
I2	CanSat Processors Ltd, Assistant Director
I3	Manitoba Harvest, President, Co-Founder
I4	Hemp Oil Canada, President & Founder
I5	Food Development Centre, Lead Scientist
I6	Canada Hemp Trade Alliance, Executive Director
I7	FISHER SEEDS LTD, Founder and President
I8	Farmer and Board of Director of Canada Hemp Trade Alliance
I9	Managing Director, Policy and Standard of Canadian Seed Association of Manitoba
I10	Executive Director of Food & Beverage Manitoba
I11	Senior Manager of Manitoba Harvest
I12	Director of Farm Operations, Manitoba

	Harvest
I13	Director of Marketing, Manitoba Harvest
I14	Industry Development Leader of Manitoba Agriculture
I15	Industry Development Leader of Manitoba Agriculture
I16	Former Manager at Manitoba Agriculture
I17	Senior Manager – Agribusiness and Senior Manager – US & Europe at Manitoba Trade and Investment
I18	Industrial Technology Advisor - National Research Council’s Industrial Research Assistance Program
I19	Director of Trade Service – World Trade Centre Winnipeg

Table 3-2 Interview protocol

Area to be covered	Sample questions
Opening	Consent Form Questions Assure Confidentiality Any Questions
Biographic Information	What position do you currently hold, what other positions have you held? How long have you been in this position? In the industry? What involvement have you had before entering into the current industry?
The process to Legalize the industry	Share your story, how did you originally learn and recognize the opportunity in the hemp industry? In your opinion, what are the successful strategies that legitimize and grow the hemp industry in Manitoba Canada?

	<p>What roles do entrepreneurs or your organization play in legalizing the industry?</p> <p>What were the critical allies for legalizing the hemp industry?</p> <p>What were the main challenges to legalize the hemp industry?</p>
The process to commercialize the industry	<p>What strategy did you or your organization use to commercialize the hemp products?</p> <p>What were the biggest challenges to commercialize the industry?</p> <p>What do you think is critical to hemp industry's long-term success?</p> <p>What is your relationship to hemp industry stakeholders?</p> <p>How did you organize around hems controversial nature?</p>

### 3.2. Analytic strategy

This study uses inductive methodology of processing data examination, which allows researchers to specify events and inspect interactions among major actors and associate the actions with the data for better theory development via chronological data (Tsoukas, 1989; Van de Ven, 2007; Yin, 2009). In addition, organizing the data chronologically allows researchers to specify events and examine the strategies entrepreneurs exercised for gaining legitimacies, thus establishing context (Tsoukas, 1989; Van de Ven, 2007; Yin, 2009).

This study theoretically oriented the analysis by assuming the opportunities that guided the entrepreneurial action. Assumptions about the nature of opportunity, business environment, and entrepreneurs, framed theoretical expectation about the co-creating process of forming the business opportunity and creating a new industry. The study worked recursively between case and theory, and applied theoretical framework into the data in order to summarize the patterns of the data. During the interactive process of examining the data, followed by the theory, the

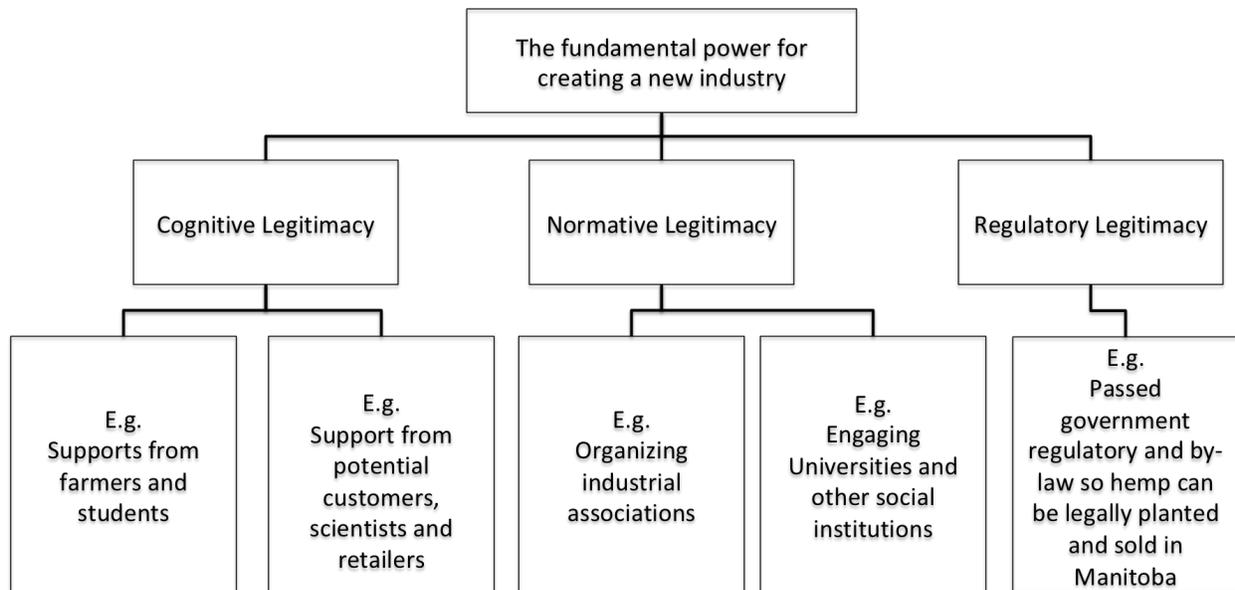
understanding of the process, legitimate strategy entrepreneurs used for creating the industry became more precise (Alvarez et al., 2014).

In the study, we conduct the analysis by assuming that opportunities are the guidance of entrepreneurial activities to do business and seek business resources (Suddaby, 2006; Yin, 2009). Assumptions about the entrepreneur, opportunity recognition and legitimacy (Alvarez and Barney, 2007; Sarasvathy, 2001; Shane, 2003) framed the theoretical expectation about the iterative process of creating an industry and exploring the business opportunity.

With regards to the analysis, the thesis recursively analyzed between the proposed theory and the case in order to construct a case based theoretical explanation and to refer the data for extending the existing theory so that we can gain a better understanding of the legitimacy building process and opportunity recognition background by examining the data, returning to the theory during the iterative process. In addition, the study maps out the timeline of events and key players for the evolvement of Manitoba hemp food industry.

The thesis analyzes the data, by coding the data, which we collected during the interviews and articles, into meaningful themes with tables. We use an Excel spreadsheet to analyze the data summary by categorizing and sub-categorizing the source of legitimacies. The tree root diagram below shows the analysis logic and process for the type of legitimacies, examples associated with the hemp food industry development.

Diagram 3-3 Tree root diagram



#### **4. A brief history of industry hemp**

Cannabis Sativa, also widely known as hemp or industrial hemp, is one of the agricultural plant species of the Cannabaceae family. The major purpose of hemp cultivation is for its fiber, primarily from the stalk, and its nutritious seeds. According to archaeologists, hemp is one of the earliest known plant species used for human cultivation (Government of Manitoba, 2017).

Hemp is an ancient plant. Some of the archaeological evidence indicated that the history of hemp could be dated back to 10,000 BCE (Before the Common Era), which is approximately 12,000 years ago as archaeologists once identified the trace of hemp rope (Psychology Today, 2011).

There had been a time that the public mistook the hemp for marijuana; still there exists the misconception, thinking the cannabis plants as one sort of psychoactive drug that contains THC, a chemical substance that influences human being's brain function and results in the change of moods, perception and individual senses (Leaf Science, 2017).

Hemp does contain THC, however, it carries negligible amounts of THC compared with the ones contained by marijuana. According to Patient Education (MedicalJane, 2015), Health Canada set the THC content for hemp at 0.3%, any Cannabis sativa plant that contains more than that will be classified as marijuana, while the authority of the United States rules that hemp shall not contain any psychoactive substance. Hemp has no harm to the health; instead, it brings good to the human being because of its abundant nutrient elements.

Hemp grows in temperate regions and its seeds can be cultivated annually. A matured hemp plant can reach a height of 5 meters. The best cultivation condition for the plant is the sandy loam with good water drainage plus an abundant of rainfall during its growing period,

usually at least 65 mm per month. Crops used for fibers are required to be sowed in density and produce plants ranging from 2-3 metres in height without branching. Plants cultivated for the oilseed purpose are grown farther apart and are shorter with branches (Encyclopaedia Britannica, 2017).

It is believed that hemp originated from Central Asia, including Nepal, Kazakhstan, Pakistan, the Kashmir region of India, and the Tibetan region of China, especially from the two areas: from the Mesopotamian Valley between the Tigris and Euphrates River and from the Yellow River valley in China (International Hemp Association, 1995).

Originating from Central Asia, hemp began its reproduction to the west and there were two directions for its propagation. One direction started from the Russian lowland plains to Scandinavia, spreading to Poland, Germany and Baltic. This reproduction route covered the Carpathian Mountains and all the way to the Danube River. Due to the way of distribution, the northern and central Russian geographical species of hemp are original from here (International Hemp Association, 1995).

The other direction initiated from Asia Minor to the Mediterranean nations and to Illyria, Gallia and Hispania and this is where the Southern Mediterranean ecological group started to form. It was the Slavs that introduced the hemp to central and northern Europe (International Hemp Association, 1995).

The Mediterranean countries of Europe started to plant the hemp in Christian era and hemp became prevalent in all the European countries in the Middle Ages. Hemp was introduced in Chile in the 1500s and a hundred year later in North America (International Hemp Association, 1995).

Though there was a time that hemp had been banned in the United States and Canada, it actually has been a popular crop in other continents for thousands of years, such as China and the United Kingdom.

It is likely that the Cannabis hemp may evolve from Northern China, and it was recorded that hemp cultivation for fiber can be traced back to 2800 BCE in ancient China (International Hemp Association, 1995).

Archaeological evidence recovered from ancient sites in China indicated that Chinese people have already applied the hemp in daily life from the beginning of human society including textiles, foods, as well as medicine and fibers, even weapons (International Hemp Association, 1995).

Although, the development of the hemp industry was quite independent in Canada, yet it is good to know the rich history of one of the oldest crop in the world and understand the history of hemp industry development from other countries such as China, United Kingdom and United States. Especially the path of hemp industry development in United Kingdom and United States shares a lot of similarities such as legalization process, comparing with Canada. It is good to know the brief histories of these countries and connect back to Canada's hemp industry development process.

The following section will provide a brief introduction about the hemp and hemp industry development in United Kingdom and United States. The history of hemp industry in China is included in the appendix A.

## **4.1. Hemp in U.S.**

In the United States industrial hemp was an important crop during the colonial era and it was crucial during World War II.

However, no matter how important hemp played a role in the process of economic development of the United States, unfortunately, it is now still illegal to grow industry hemp for commercial purposes. Regardless of the legitimacy of hemp in America, we shall not forget the fact that hemp once had a place in U.S. agricultural history, as it contributed to the economic development of the nation.

Though the exact time that Americans started the hemp cultivation is unknown, still we learned that before the first European colonist arrived, the trace of hemp was already in the states. It is said that, possibly, the original source of hemp could be from China by explorers, from migrating birds, or likely from shipwrecks that once carried hemp seeds (Marqaha, 2010).

### **4.1.1. Hemp in early days**

There was no record of hemp application until 1632. Due to the hunger for hemp from the colonists' motherland, the cultivation of the plant was mandatory since then (Hemp History Week, 2017).

According to the Virginia Assembly, each planter should plant and provide the seeds of flax and hemp as soon as he may. Courts in Massachusetts and Connecticut quickly followed, passing the similar mandates that all families were required to plant one tablespoon of hemp seeds (Medical Marijuana, Inc., 2017a).

Farms were encouraged to grow Cannabis over all the American colonies during 17th and 18th centuries. Virginia even set the laws that enforced farmers to cultivate the hemp, and

anyone who did not comply would be kept in prison (Marqaha, 2010). The Government hired lobbyists to promote and educate the public about the importance of hemp.

Hemp was so valuable that it once played a role as currency for more than 200 years. From the middle 1600s to the early 1800s, hemp was taken as a legal tender that could be used to pay taxes throughout America (Hemp.com, 2014).

Harvested hems were transported to England for production of clothing, shoes, books, tents, bags and much more as colonies were banned from hemp processing. The crown country needed the raw material to increase the capacity of domestic labor force and the finished fiber goods would be sold back to colonial America from England, which was a source of exportation income (Medical Marijuana, Inc., 2017a).

Hemp fiber continued its role as a kind of manufacturing material for ground troops and naval forces after gaining independence from Crown Britain. Hemp was meaningful to America. It was a sign of freedom and independence. It is said that the first draft of The Declaration of Independence was written on hemp paper in 1776 and the first American flag was made from hemp as well (Digital Hemp, 1998).

Hemp later became a staple crop of American agriculture after the independence. To advocate its importance, George Washington and Thomas Jefferson set themselves as the example to cultivate hemp on their plantations, and Benjamin Franklin started one of America's first paper mills with cannabis (Journal of the American Revolution, 2016).

#### **4.1.2. Hemp in 19th & 20th century**

Hemp was considered as one of the most important crops to the common wealth and the nation kept growing the plant in the 19th century. More states started to cultivate cannabis such

as, Illinois, California, and Nebraska since the demand of hemp increased (Medical Marijuana, Inc., 2017a). Kentucky was the national leader of the hemp production in the mid-19th century, with a peak production of 40,000 tones (Kentucky Department of Agriculture, 2015).

Data collected from the 1850's census indicated that there were more than 8,000 hemp plantations, which were at least 2,000-acre-farmland, in the United States and these cannabis plants would be used for cloth, canvas and cordages. With the increase of hemp production, the ideas about hems' utilization became more eager than it used to be (The Truth about Hemp, 2000). The Congress ordered that the Navy should purchase hemp from domestic farmers in 1841(Medical Marijuana, Inc., 2017a).

After the Civil War, the cost of the labor force increased significantly because of the abolition of slavery. Machines could do more work, therefore replacing human beings. It was the industrialization of hemp that drove the innovation of technologies.

G.F. Schaffer, one man from New York, invented Hemp Dresser and filed its patent in 1861. Shortly after that, one German farmer invented the Decorticator machine.

The invention of Hemp Dresser and the Decorticator machine are two crucial machines to the hemp industry as they not only revolutionized the industry but also upgraded the efficiency of harvest and manufacturing procedures.

As per one article from Popular Mechanics Magazine, published in 1938 (Global Hemp), hemp was taken to be a cash crop that would value one billion dollars. Unfortunately, these praises came one year late with the release of Marihuana Tax Act and hemp lost its splendour.

### **4.1.3. Prohibition Round I**

The government enacted the Marihuana Tax Act in 1937, which defined “marihuana” is “all parts of the plant *Cannabis sativa* L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant; and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds, or resin...”(Hemp.com, 1997).

In the absence of clear distinction from marihuana, owing to the definition, hemp was classified under the umbrella of “marihuana”.

Though the law did not ban the cultivation of hemp, it did turn over the regulation of licensing hemp production to the Department of Revenue (Medical Marijuana, Inc., 2017a) and different amounts of tax were required to pay for any kind of sales or transfer of the cannabis products. For example, physicians would be required to pay tax for prescribing cannabis and even pharmacists would be charged a tax for selling cannabis. Anyone who failed to pay the tax would be fined \$100 per ounce of hemp or fraction thereof (Medical Marijuana, Inc., 2017a).

This tax act hindered the domestic hemp cultivation and to some extent restricted the development of hemp as it restrained the demands of hemp products due to the high levy.

### **4.1.4. Hemp in WWII**

The United States was engaged in World War II in 1941. With the war started, the hemp industry began to rebound due to the increased military needs (Hemp History Week, 2017). U.S. had to rely on the support of the domestic hemp production as Japan cut off the supplies of hemp from the Philippines. At that time, hemp was an essential material for making military uniforms and other warfare equipment and supplies.

To restore the farmer's willingness to grow hemp, the federal government designed and launched a pro-hemp campaign. The USDA not only produced an educational film named "Hemp for Victory" (Hemp Business Journal, 2018) but also distributed 400,000 pounds of seeds for cultivation, urging domestic farmers to grow as much hemp as they could for the war effort. From 1942 to 1946, Wisconsin and Kentucky were the two main states that cultivated the most hemp fibers (Farmer Collector, 2004).

It was worth noticing that even with the high demands for hemp, there was no change to the Marihuana Tax Act. Only one privately run company, named War Hemp Industries, was established to subsidize hemp cultivation and its relative processing so as to relieve the tax burden from farmers (Medical Marijuana, Inc., 2017a).

However, hemp's resurgence was quickly gone with the end of the war. As soon as the war ended, there was no more demand for domestic hemp fiber and hemp would face another round of prohibition in the following years (Medical Marijuana, Inc., 2017b).

#### **4.1.5. Prohibition round II**

The United States Congress passed the Boggs Act of 1952 aiming to set mandatory sentences for drug convictions. The Act mandated that for anyone who was convicted for the first time for marijuana possession would be sentenced to a minimum of 2 to 10 years and a fine of up to \$20,000 (David, 2018).

Even though differences exist between hemp and marijuana, the government never had an official declaration about this and still kept hemp under the category of marijuana. Thus, people still hold a fear of hemp and believe it will cause harm to their health. Especially, when

the number of students and youth who were taking marijuana increased, the public was concerned and became panicked (Medical Marijuana, Inc., 2017b).

After Richard Nixon won the election, to fulfill his promise during the presidential campaign, which was to restore “law and order” (Medical Marijuana, Inc., 2017b), the Congress passed the Controlled Substances Act, a statute that regulated manufacture, importation, possession, usage and distribution of drugs in the United States and served as the national legislation for the Single Convention on Narcotic Drugs (Jay, 2001).

The Controlled Substances Act also classified drugs into five Schedules. Cannabis was categorized as the schedule I, which refers to the banned substances that would bring the highest penalty if anyone violates. Still, there is no clear distinction between marijuana and hemp in this federal act (DEA, 2017).

Hemp, thus, was fully prohibited throughout the nation from 1970.

#### **4.1.6. Hemp today in U.S.**

The manufacturers in the United States nowadays import hemp from Canada, China and Europe since it is still illegal to cultivate hemp for commercial purposes.

With the increasing amount of scientific results now showing that hemp is a completely different substance than marijuana, and can be used in a wide variety of applications, hemp is beginning to take root in America once again with the gradual acceptance of each individual state.

Though the definition of hemp has not been changed in the Controlled Substance Act comparing the Act of 1937, it regulates that sterilized hemp seed, hemp fiber and hemp seed oil are exempted from the definition. More importantly, in 2004, the Drug Enforcement

Administration was deprived of its authority to regulate those specific parts of hemp. This means hemp is allowed to be imported and manufacturers are free to apply those exempted hemp parts on production (Medical Marijuana, Inc., 2017a).

In addition, with the gradual awareness of cannabis' medical application, the 2014 U.S. Farm Bill Section 7606 clearly states that the state agriculture departments and universities can grow industrial hemp for research purposes and trial programs (Medical Marijuana, Inc., 2017a). Plus, according to the Amendments to Congressional Appropriations bills also explicitly declare that DEA and DOJ (Department of Justice) are not allowed to levy tax on hemp cultivation for research in states where it is legal (Diversion Control Division, 2016).

No matter how strong opposition is to import hemp seeds that the DEA addresses, individual state governments still are highly supportive to the development of the hemp industry as hemp is re-considered as a cash crop that will generate economic benefits. Individual states are working on making their own legislation over hemp cultivation and its application.

Notable achievements are being made. Three states are able to grow hemp in 2014 and they are Kentucky, Vermont and Colorado respectively. Currently, there are 34 states that passed the hemp cultivation legislation and at least 27 states have legalized hemp for commercial purposes (National Conference of State Legislatures, 2017).

In 2017, one bill named The Industrial Hemp Farming Act was introduced by the congressmen. The bill required removing industrial hemp from the Controlled Substances Act. As soon as this is passed, the hemp cultivation in the whole of America will be legalized immediately (Hightimes, 2017).

It is estimated that the total market value of the hemp industry is \$688 million and the demand continues to soar, which for sure will bring more pressure on lawmakers to pass the federal legislation related to the hemp cultivation (Medical Marijuana, Inc., 2017a).

As awareness of hemp's nutritional performance increases, together with the demands for agricultural practices renewal and advancements in cultivation innovation, hemp, being a crucial and feasible crop in the United States and other countries in the world, will be a sure thing.

## **4.2. Hemp in the UK**

Hemp has been farmed and used in the United Kingdom for thousands of years and it once was the most valuable commodity in the country. U.K. once as the crown country, triggered needs of hemp and urged the hemp cultivation and application in its colonies to fulfill its needs, which impacted the hemp industry in the U.S. and Canada. There was a time that hemp was prohibited in Britain, which was due to its similarity to marijuana. With years of efforts and researches, hemp has been legalized in U.K. (UK Hemp Association, 2017).

### **4.2.1. Hemp in the early days**

The history of hemp cultivation and application in the UK can be traced back to the Roman times and even beyond according to the archaeological evidence (UK Hemp Association, 2017).

Archaeologists found the hemp rope at the Antonine Wall, which can be dated to 140AD and identified the sample of cannabis pollen placed at Old Buckingham Mere in Norfolk, which was from 400 AD (UK Hemp Association, 2017).

The cultivation and application of hemp in the UK spread from the Elizabethan era (around 1550AD-1600AD) to the mid 19-century. Thanks to hemp's versatility, it was extensively used at that time and its most notable application was on naval and commercial ships. Usually, hemp was processed to produce clothes and uniforms of sailors and sails, rigging, cordages and sacks of the ships (UK Hemp Association, 2017).

With the expansion of the Great British, once being the largest country in the world, its reliance and demand for hemp grew dramatically. Hemp was taken as the most valuable crop with regards to its contribution to the naval and international trade successes. It can even be the trigger of the war and sometimes pre-emptive strikes were made on potential enemies to keep hemp from being obtained. The urge for hemp stimulated the economic development and provided thousands of jobs (Farmer Collector, 2004 & UK Hemp Association, 2017).

It was common for farmers to grow hemp in the UK due to the high-volume orders from the Royal Navy and trading companies. There was even a time that all farmers were required to grow some volumes of the cannabis plant to make sure there was a steady hemp supply. More than that, the Britain's American colonies were mandated to farm hemp, which was later on transported to Britain for their own military and industrial application (Farmer Collector, 2004).

Records suggested that hemp was cultivated in each single county in England, Ireland, Scotland and Wales to fulfil the appetite of hemp (UK Hemp Association, 2017). The name of certain places derived from the Celtic and Anglo-Saxon words for hemp. The most famous one would be Hampshire that derived from the German "hanf" and Hampshire once was a county of significant naval importance. Other places named Hempriggs and Hemphill still exist today (UK Hemp Association, 2017).

The domestic cultivated hemp soon faced the threats from the imported one, as the cost of transporting goods by ship was cheaper than the cost of inland transportation. Britain started to purchase hemp from outside with an increasing demand. Besides, the hemp cultivation in Britain was dispersed which made it difficult to achieve the economic scale. Taking these into consideration, Britain began to import hemp from Russia (UK Hemp Association, 2017). Most importantly, Russia, by that time, had developed more sophisticated techniques over hemp retting and processing, which can generate a better quality of hemp textile.

Hemp industry in the UK was gradually shrinking in the 19th century with the invention of the steamship. Actually, the first ocean-going steamship was a signal that indicated the demise of UK hemp, as it brought back other viable materials to take the place of the demand for hemp. Even the demand from the navy was diminished.

When looking back, the decline of the hemp industry already had a slow start from the early 18th century. Cotton began to take the position of dominant players in the textile industry and had the tendency to substitute hemp sails and other hemp cloth for two reasons. Firstly, due to the different nature of the plants, textiles made with cotton are softer than the ones made with hemp, which are more suitable for clothing. Besides, the cost to process cotton is way cheaper than hemp, including plant harvesting, fiber extraction, and spinning and this made the price of the cotton comparatively cheap.

Losing its dominant position on the market, hemp was banished to the niche markets, focusing more on military uniforms and work wears, and other hardwearing textile markets such as canvas camping equipment and soft furnishings.

#### **4.2.2. Hemp prohibition in the UK**

The war of cannabis prohibition was started by Britain's colonies first rather than Britain itself. British India attempted to criminalize cannabis in 1838, 1871 and 1877 (A Cannabis Reader, 2008).

In 1894, the British Indian Hemp Drugs Commission made a clear statement that the use of cannabis would cause harm to the society. Records showed that Mauritius banned cannabis in 1840 (MarijuanaBreak, 2018), followed by Singapore in 1870 (MarijuanaBreak, 2018), Jamaica in 1913 (Marijuana.com, 2016), and Sierra Leone in 1920 (Lansana, 2015).

Britain itself, it was in 1928 that cannabis was first banned as a drug and was listed as an addendum to the Dangerous Drug Act 1920 to be in line with the 1925 International Opium Convention (Jay, 2001).

As hemp was miss-associated with its psychoactive cousin, marijuana, in 1971, the Misuse of Drugs Act was passed and it listed cannabis as "Class B" (Legislation.gov.uk, 2017). Here cannabis is referred to all cannabis varieties, including those grown as hemp, not just drug varieties (Legislation.gov.uk, 2017). It was outlawed from then on.

#### **4.2.3. Hemp in UK from 1993**

The campaign for the hemp industry has never been stopped in the UK. The hemp community successfully argued that although industrial hemp was a variety of the cannabis plant, it could be grown as a legal crop as it contained practically no THC and this clearly differentiates hemp from marijuana.

Bobby Pugh, one of the hemp business runners also acting as an environmental campaigner, expressed that “Hemp can provide the answer to many of our environmental woes, yet it's been stigmatised, sidelined and denied for decades" (The Guardian, 2006).

With years of efforts, Hemp cultivation in the UK was re-legalised in 1993 and is now a licensed activity (UK Hemp Association, 2017).

## **5. Co-creation of the hemp food opportunity and hemp food industry in Canada**

As the creation of hemp food industry in other countries unfolded the opportunity for commercial hemp food industry became observable, and the knowledge value that had been created around the world was diffused to entrepreneurs in Canada. Now there is a group of entrepreneurs who have realized the business opportunity to grow new crops in Canada. In order to do this, hemp food entrepreneurs had to work together with multiple parties to create this industry. During the process, hemp food entrepreneurs have worked together to overcome two main related issues in order to keep the hemp food industry evolving and moving forward. The two main issues are legalizing the hemp food industry by working with government agencies to develop the legal framework of the hemp food industry, commercializing the hemp food industry by creating and working with different industry stakeholders to develop and apply the industry standards, while promoting and educating the value of the hemp foods to consumer markets. Thus, this section explains the evolvement of the hemp food industry in detail in terms of how hemp food industry is legalized, institutionalized and commercialized in Canada. For a better understanding, this section is divided into four sub-sections in chronological order, which are, hemp food legalization in Canada, Manitoba hemp food entrepreneurs and advocates in legalizing hemp food in Canada, the building of hemp food business and hemp food industry in Canada and the legalization strategy entrepreneurs used in establishing the hemp food industry.

### **5.1. Hemp foods legalization in Canada**

The historical controversy over Cannabis shows how difficult it was for hemp advocates and how many challenges entrepreneurs have encountered to create and legitimize the hemp

industry. Beginning in 1985, hemp foods started to gain some public attention, in part, due to an influential book written by Cannabis activist Jack Herer and Chris Conrad. This famous book spreads globally and advocated efforts to legalize the hemp food industry in Canada. It inspired hemp advocates and played a critical role in convincing the Canadian government to retake hemp as an industrial crop and make efforts to re-define the differences between hemp and marijuana.

It is impossible that hemp would have become a legitimate crop in Canada without stakeholder's efforts to advocate a restructuring and a new understanding of the hemp crop. Despite the efforts of hemp foods advocates, there were many challenges and obstacles to conquer, mostly due to its similarity to marijuana. In addition, government officials were initially sceptical about legalized hemp as an agriculture crop. For instance, Dr. Ernest Small stated, "the idea of reintroducing hemp as a Canadian crop did not attract much attentions, and indeed so did that in the U.S.," (Clarke, 1999:5). It was evident that the legalization process of hemp in Canada began with gaining political support from different levels of government in order to conduct the necessary hemp research.

In 1994, the Manitoba Hemp Alliance (MHA), founded by Martin Moravcik, Meera Sarin, Wayne Potoroka, and Gil Maguet, successfully lobbied the Manitoba government to grant the first hemp research in Manitoba after 60 years prohibition of hemp food. In addition to the success of the hemp scientific research study, in 1995, seven different groups across Saskatchewan, Manitoba and Ontario conducted a combined area of 40 acres study for hemp field trials (Owen, 2012). These studies were strongly promoted by other farmers and farm groups because they started to realize the agricultural potential of growing hemp in Canada (Small and Marcus, 2002). In addition, for the diversification of agricultural and economic development, the government needed the new crops quickly. Thus, Canada considered a

“combination of perspective economic benefit coupled with assurance that hemp cultivation will not negatively affect the enforcement of marijuana legislation” (Small and Marcus, 2002:319). Therefore, as a result, due to the in-depth research, political support and stakeholder pressure, the Controlled Drugs and Substances Act (CDSA) was amended in May 1997, and Bill C-8 was executed in the same year to legalize hemp in Canada. On March 12, 1998, the new regulation of Industrial Hemp Regulations (IHR) was launched by Health Canada and served as the regulatory framework for the Canadian hemp industry. Hemp was no longer considered as a narcotic drug; instead, it was taken as a high value, agricultural crop that requires regulation to ensure its proper use. Nowadays, the government agencies including Health Canada, Agriculture and Agri-Food Canada, openly support hemp food production because it offers unique, nutritious foods to environmentally friendly clothing, Canada’s hemp food industry can offer great values to everyone (AAFC 2017). A detailed timeline table of Canadian hemp legalization events is shown at the end of the next section 5.2.

## **5.2. Manitoba hemp food entrepreneurs and advocates in legalizing hemp food in Canada**

It is unlikely that industrial hemp will be successfully legitimized without the support and advocate efforts made by entrepreneurs, given the challenges and complexity of legalizing hemp foods. According to Health Canada’s answer to why the government modified its laws to grant the hemp cultivation, it is said that there was increasing interests in the cultivation of industrial hemp as a potential source of new jobs as well as increasing needs to develop alternative sources of fiber. Consequently, with the demands and encouraging research findings, Health Canada chose to legalize the industrial hemp (Health Canada). Entrepreneurs played a critical role in

legalizing and legitimizing the hemp food industry in Canada. The following section explores the strategies used by a group of hemp entrepreneurs and activists.

This begins by reviewing the motivation of hemp food entrepreneurs. Next, the section explores how entrepreneurs ally together and the strategies they used to gain different kinds of legitimacy. This includes cognitive legitimacy, normative legitimacy and regulatory legitimacy. The establishment of an association was very important for the legalization process to gain all three kinds of legitimacy. The entrepreneurial leaders, moving the legal process forward, are also important to this process. Educating to farmers and industrial stakeholders are critical to a successful outcome. The way entrepreneurs defined the political opportunity is also necessary for success since a major law change in agricultural policy fundamentally created an opening for new hemp food industry.

Entrepreneurs believe that farming hemp is an agricultural, ecological and economic opportunity in Manitoba. During the interview with hemp food entrepreneurs, including the Co-founder of Manitoba Harvest, the Founder of Hemp Oil Canada, the President and Director from Cansat Processors and the President of Fisher Seeds, all of them believe that hemp foods are going to be a huge opportunity for the agricultural industry from both an economic and social perspective. Thus, with the passion of the hemp food industry in mind, hemp food entrepreneurs organized to influence agricultural stakeholders and policy makers.

### **5.2.1. Hemp Food Entrepreneurs begin to advocate the legalization of hemp industry by allying stakeholders together and gaining public supports from the community**

In 1992, Martin Moravcik started to import and manufacture handmade hemp items. During the time, Martin started to connect with farmers and government leaders to promote the

industry. In 1994, through Martin Moravcik, Meera Sarin, Wayne Potoroka and Gil Maguet's leadership and university resources, the University of Manitoba Hemp Awareness Committee (UMHAC) was formed. The UMHAC organized a hemp celebration event, which reached maximum capacity of 200 people (Winnipeg Free Press, 1994). This was an important strategy to engage stakeholders for hemp food legalization in Manitoba. In addition, UMHAC introduced Chris Conrad, the recognized international hemp reform leader and co-author of the "Emperor Wears no Clothes" to Winnipeg, and he gave lectures about hemp benefits (Owen, 2012). In addition, UMHAC distributed hemp educational materials outside of the university aiming to share the benefits of hemp to a broader public audience. The public engagement and education strategy for gaining public support was very successful at that time, which led to the later hemp industry development.

Later UMHAC transformed to the Manitoba Hemp Alliance in order to make the connection with politicians and officials to continually move forward the hemp legalization process (Hemp Academy, 2017). In the same year 1994, the MHA approached Harry Enns, the Minister of Agriculture in Manitoba, and provided the informational pamphlet titled "The Trillion Dollar Crop" about industrial hemp. The delivered information roused the interest of the Minister of Agriculture, and he later on asked for a comprehensive business plan for the hemp cultivation (Owen, 2012).

In 1994, an analyst and Manitoba resident who worked for Agriculture and Agri-food Canada wrote a hemp article that was published in the Agriculture Canada newsletter (Owen, 2012). As it was a government issued document, it further provided the legitimacy for hemp legalization and legitimatization.

In 1995, MHA organized a stakeholder meeting, which hemp food advocates, farmers and other stakeholders came together to discuss the future potential of hemp cultivation. One of the keynote speakers came on behalf of Health Canada and he mentioned the United Nations Single Convention on Narcotic Drugs was the document that prohibits hemp cultivation in Canada (Owen, 2012).

### **5.2.2. Hemp Food Entrepreneurs continue to advocate the legalization of hemp industry by gaining government supports and conducting and producing scientific evidence**

Later on, in 1995, MHA delivered to the Minister the business plan he requested while asking the Government of Manitoba for assistance in advancing hemp agriculture. As a result, Harry Enns, the Manitoba Agriculture Minister at that time, approved nearly \$24,750 funding grant and offered the services of a New Crops Agronomist. With the support from the Minister, MHA successfully acquired the required permits from Health Canada to plant hemp in 1995. The first hemp crops were harvested within less than nine months.

Next strategy was to conduct research from the hemp trials. Thus in 1996, the research studies on the yields, THC levels and the fiber and cellulose were conducted. It is important to state that the hemp trial study was government endorsed, as it improved the legitimacy of the research owing to the provincial support and oversight. The results of the hemp trial indicated that hemp can be grown with undetectable amounts of THC, less than 0.003%. THC, Tetrahydrocannabinol, is the chemical compound in cannabis responsible for a euphoric high. The amount of THC contained in hemp and marijuana is the key factor defining the difference between these two plants. After the success of the research study, in 1996, MHA held a hemp

symposium to effectively engage and convey the result of the research study to all stakeholders and most importantly to government. Given the successful research, entrepreneur demands, public and political support, the industrial hemp was legalized in Canada in 1998.

Table 5-1 Milestones that affect the development of hemp food industry

Year	Milestone
1993	<ul style="list-style-type: none"> <li>• Martin conducts research and establishes important relationships with farmers and government leaders</li> </ul>
1994	<ul style="list-style-type: none"> <li>• Martin Moravcik, Meera Sarin, Wayne Potoroka and Gil Maguet founded University of Manitoba Hemp Awareness Committee (UMHAC)</li> <li>• UMHAC organized hemp celebration event</li> <li>• UMHAC brought hemp industry leader Chris Conrad to Winnipeg, to advocate industrial hemp in Canada</li> <li>• UMHAC distributed educational materials to share the benefits of hemp</li> </ul>
1995	<ul style="list-style-type: none"> <li>• UMHAC officially change to the Manitoba Hemp Alliance</li> <li>• Lobbied Government of Manitoba, Harry Enns, the Minister of Agriculture to support and fund hemp trial study project named “ Agronomic and Economic Viability of Hemp”</li> </ul>
1996	<ul style="list-style-type: none"> <li>• The results of the hemp trial study indicate that industry hemp can be grown with virtually zero THC</li> </ul>
1997	<ul style="list-style-type: none"> <li>• The Controlled Drugs and Substances Act was amended</li> </ul>
1998	<ul style="list-style-type: none"> <li>• The Industrial Hemp Regulations was launched</li> <li>• Industrial hemp is legalized in Canada</li> </ul>

### **5.3. The building of the hemp food business and hemp food industry in Manitoba**

#### **Canada**

This section explores the development and commercialization phase of the hemp food industry in Manitoba and what strategies hemp food entrepreneurs applied to develop the market. Legitimate forces from different founded hemp food organizations including Manitoba Harvest, as well as hemp associations and government institutions joined together to build the industrial hemp industry. In accordance with an institutional entrepreneurship theory, entrepreneurs seek to change the broader social system via changing political, economic, legal and cultural institutions as a means of advancing their value, social and business interests that have been limited by current social and institutional norms (Westley and Antadze, 2010). In addition, as Jeff from Manitoba Agriculture explained that whatever they worked with industry, the way the government approaches that partnership is letting industry take the lead.

The growth strategy of early hemp food entrepreneurs, such as building the relationship with government and the public, educating the public about hemp foods and utilizing the moral resource, is explored in this section. Hemp food entrepreneurs such as the co-founders of Manitoba Harvest are then described. All together, the growth strategy created forces to push the social movement of the hemp food industry, which in turn, benefited the growth of the hemp food industry as a whole.

### **5.3.1. Hemp Food Entrepreneurs Building the Momentum of Hemp Food Industry by Educating the Public about the Hemp Food Products**

As the new industry emerged with the misperception with Marijuana, education was a key strategy behind the success of the business and industry. The hemp food entrepreneur explained that working with hemp associations and universities, trying to gain knowledge was important. People have small minds and associate hemp with Marijuana. The threat of competing with large companies in the hemp food industry was not the major concern due to the relationship between hemp and Marijuana and neither the small market nor the large companies were interested in tapping the hemp food industry (I2). Thus, in the early year, entrepreneurs such as Mike Fata, Martin Moravcik, the Co-Founders of Manitoba Harvest, spent a lot of energy on educating and promoting hemp foods. The Senior Manager of Manitoba Harvest explained, “Getting in touch with the first group of distribution channels rely heavily on trade shows” (I11). These were some of the key strategies to communicate with the public. In addition, printing brochures on hemp nutrition, serving samples at trade shows and conducting promotion through social networking such as Facebook and Internet blogs are some of the main educational tactics that entrepreneurs used. (I1), the hemp food entrepreneur said, “Travelling around world for trade shows and sending samples to different company are critical”. Furthermore, (I13), the Director of Marketing in Manitoba Harvest explained that, “What we did back then was educating consumers on health benefits and versatility of hemp food and providing a lot of samples to allow potential consumers to try it out”. The promotion aims to create a new understanding of hemp food as a nutritional opportunity rather than a drug issue (Owen, 2012) because the speed of industry growth determines the growth capacity of the business.

### **5.3.2. Hemp Food Entrepreneur Promoting Hemp Foods by Sharing the Personal Story about Hemp Foods to the Public**

Additionally, one of the greatest successful strategies for hemp food promotion was from Manitoba Harvest. Mike Fata enhances hemp's legitimacy by sharing his personal story of hemp. His background and experience showed a direct correlation to the health benefits of hemp foods. There was a time that he was overweight over 300 pounds and sick. After a non-fat diet, though he lost the weight, yet he was not in a good health condition as he lacked protein, Omega 3 and Omega 6, the essential fatty acids. Mike later took hemp food for daily diet, which contains all protein, good fats and fiber, and the hemp diet restored his health. Mike Fata shared this story via all means of media such as product package, social media, corporate website and interviews. During the interview with the (I3), he explained that, "Share my personal story. If it's possible that I lost 100 lbs., other people can also do that". Mike's story is one of the key sources of legitimacy to promote hemp foods not only for Manitoba Harvest but also benefits the hemp food industry.

### **5.3.3. Hemp Food Entrepreneurs Gain Normative and Regulatory Legitimacy by Pursuing Industrial Certifications and Developing Partnerships with Institutions and Government Agencies**

In addition, the key ally formed by the Food Development Centre, the provincial funded institution that specialized in research, product development and test market production, was another key strategy to help the hemp food companies including Manitoba Harvest and Hemp Oil Canada, to launch their first product. The partnership was important for hemp businesses to grow and keep innovating new products and process technologies. As explained by the (I15), the

Industrial Development Leader with Manitoba Agriculture, that, “There was a lot of work done through Food Development Centre in the past and get that information to the consumers. Food Development Centre did a lot of work for the hemp in the early stage to provide the required legitimacy for them to market the products.” Besides assisting researches and production development, the Food Development Centre also leased some space and facility to some companies in the first few years of their star-up business.

Moreover, from the innovation and research perspective, hemp food entrepreneurs actively engage and pursue help from the government in order to access the necessary funding for research and innovation such as the Industrial Research Assistance Program (IRAP), which is one of the main funding programs to help entrepreneurs and companies to do industrial related researches. Hemp food companies have been using IRAP funding to do many different kinds of hemp related researches in order to continuously develop the markets. For instance, by working with the Food Development Centre and IRAP, hemp food entrepreneurs have developed different forms of products such as hemp hearts, hemp proteins and hemp oils products, in order to meet different customer’s needs. In addition, hemp food entrepreneurs developed better technologies to extract oil and proteins for higher efficiency and better quality.

Furthermore, gaining support from government is another important piece of the business development strategy for hemp food entrepreneurs. It greatly advanced the hemp food industry by engaging with federal and provincial governments to market and coordinate trade professionals to grow Canadian hemp food industry. The trade and marketing government agencies such as Manitoba Trade and Investment and World Trade Centre Winnipeg have been helping these companies navigate application processes, participate in trade shows and subsidize

the cost of trade missions for years. They also facilitated meeting with foreign investors, buyers and coordinated entrepreneurs to join the food trade shows.

Another strategy Manitoba Harvest and other hemp food businesses adopted to grow the business and industry, is getting certification from third parties in order to institutionalize and sustainably grow the hemp food industry. Explained by the interview 11 from Manitoba Harvest, “We get a lot of certifications, spend a lot of money on the quality control and meet the requirement of sustainability and triple bottom-line. We do not just do it for the profit, but also for the good of environment and our people because customers are asking for those types of things”. These third-party certifications such as ISO 9001, food quality certification, organic certified and Global Food Safety Initiative (GFSI) standards are other important sources of legitimacy for gaining the trust from the customers and, in turn, growing the business.

#### **5.3.4. Hemp Food Entrepreneurs Continues to Gain Cognitive and Normative Legitimacy by Establishing Canadian Hemp Trade Alliance**

Lastly, one of the key strategies behind the long-term health growth of the hemp food industry was the effort made to establish the Canadian Hemp Trade Alliance (CHTA) by a group of hemp food entrepreneurs in 2003. The CHTA is a national organization that promotes Canadian hemp and hemp products globally. As CHTA is a not-for-profit, hemp member-based organization; it is a primary social organizational resource representing the interests and the goals of the Canadian hemp food industry. As further explained by (I4), the Founder of the hemp food entrepreneur and the founder of the CHTA, “Everybody has been involved in the hemp industry, typically worked together through CHTA, I initiated the alliance. The purpose of the

CHTA is to serve the stakeholders involved in the hemp food industry, farmers, food manufacturers, governments and universities and other food producers.”

For the long-term sustainable growth of the hemp food industry, conducting research continues to be a fundamental strategy. New and proved knowledge on hemp food and oil is vital to gain legitimacy within medical, health, government and public outlets. As explained by (I6), the Executive Director of CHTA, one of the purposes of the association is to engage researchers in undertaking projects on behalf of the industry. It is very hard and nearly impossible to conduct and fund the research project by an individual hemp food company. Thus, the Canadian Hemp Trade Alliance is an important vehicle to pursue necessary research projects on hemp to keep the hemp food industry moving forward. Even though research is necessary, yet challenging, due to the high costs behind these projects. Therefore, the CHTA has to strategically manage and decide when and what study they should pursue. In conjunction with funding from the government, hemp food companies, CHTA was able to conduct research work in order to continuously support the hemp food industry.

In addition, keeping open communication between all levels of government, the public and entrepreneurs is critical to the hemp food industry as explained earlier. CHTA was a strategic communication channel between entrepreneurs and government; it played a critical role in facilitating relationships between industry and government. In addition, CHTA also acts as one of the means for entrepreneurs to gain government support. As (I4) explained, “The government likes to deal with industry associations, rather than individual commercial entity. Supporting associations with government grants and other funding”. In addition, organizing CHTA annual convention and publishing stakeholder reports are some of the other strategies CHTA used to engage government and the public in general.

The last core function of CHTA is networking. As a central social resource for the hemp food industry, the organization connects and provides information to various stakeholders as a communication gateway for the industry. As (I6) explained, “Working with the government to help promote hemp food to other farmers, undertaking research, dealing with the provincial and federal government, such as Health Canada, and organizing workshops for farmers, are all part of the works for the CHTA.”

This section explores the strategies that entrepreneurs used in the hemp food industry development and commercialization stage. Education is the key to develop the market. Partnership with local government institutions such as Food Development Centre is important for early business development. In addition, obtaining certifications from a third party to further institutionalize the industry is important to move the industry forward. Lastly, forming CHTA industrial association to represent the new industry in order to support the hemp food industry in general, providing services to hemp food stakeholders and gaining government support and funding to conduct necessary research are critical to the hemp food industry evolution and success in Manitoba Canada.

#### **5.4. The legitimacy and legitimation strategy entrepreneur used in establishing hemp food industry**

Industries have more or less legitimacy that can impact the firms operating within the industry (Aldrich & Fiol, 1994; Scott, 1995b; Schman, 1995; Zucker, 1988). Thus, legitimacy plays a very significant role in the success of the hemp food industry. In the mid-twentieth century, Cannabis was a controversial issue in North America due to years of misinformation. During the interviews, the hemp food industry stakeholders including the government agency,

entrepreneurs and institutions, all unanimously stated that the marijuana connection was always a challenge in both legalization and commercialization stage. For instance, the Senior Manager at Manitoba Trade and Investment (I17) explained, “The biggest challenge was separating the idea that hemp is different from marijuana. Today the argument would be completely different given the potential legalization of marijuana. However, 20 years ago the legalization of marijuana was nowhere on anybody’s mind. That was probably the biggest hurdle making a strong case that hemp is completely different than marijuana.” As a result, stakeholders who advocated for hemp were very difficult. They needed to work together and strategically plan to gain allies and support in order to legitimize hemp foods. Table 5-2 provides the examples of legitimation strategies and types of legitimacy hemp food entrepreneurs used during the hemp food legalization and commercialization stages.

Table 5-2 Legitimation Strategy Table

<b>Stages</b>	<b>Type of Legitimacy</b>	<b>Strategies</b>	<b>Examples of legitimation Strategies</b>
Legalization	Cognitive legitimacy	Manipulation	In 1992, Martin conducts research and builds important relationships with farmers and government leaders.
	Cognitive legitimacy	Manipulation	In 1994, hemp entrepreneurs organized hemp celebration event to engage stakeholders and educate the value of the hemp foods.
	Normative and cognitive legitimacy	Manipulation	In 1994, under the several hemp food entrepreneurs’ leadership and ally with University of Manitoba, the University of Manitoba Hemp Awareness Committee was formed for promoting hemp and lobbying government for existing regulation.
	Cognitive legitimacy	Manipulation	In 1994, UMHAC organized hemp

			celebration event, which reached maximum capacity of 200 people. The Winnipeg Free Press covered the event.
	Cognitive legitimacy	Manipulation	In 1994, UMHAC brought Chris Conrad, the recognized international hemp reform leader to Winnipeg and gave lectures about the hemp benefits.
	Cognitive legitimacy	Manipulation	UMHAC wildly promote and distribute educational materials to share the benefits of hemp.
	Cognitive legitimacy	Hedonic legitimation	Manitoba Hemp Alliance made the pamphlet titled “ The Trillion Dollar Corp” to advocate the hemp industry and lobby the government.
	Regulatory legitimacy	Creation	UMHAC became Manitoba Hemp Alliance in order to connect with politicians to change the regulations for hemp production. MHA successfully lobbied Manitoba Government to provide funding and necessary resources to conduct the hemp trial.
	Cognitive legitimacy	Manipulation	MHA organized a stakeholder meeting in 1995, to discuss about the future potential of growing hemp including a speaker from Health Canada, entrepreneurs and farmers.
	Regulatory legitimacy	Manipulation	MHA delivered to the Manitoba Agriculture Minister the business plan for advancing hemp agriculture and while asking the Government of Manitoba for assistance in research on hemp trials.
	Regulatory and normative legitimacy	Selection	MHA choices to conduct the hemp trial study and organized these centre core

			hemp legalization activities in Manitoba due to the favourable social and political environment for hemp entrepreneurs.
	Cognitive legitimacy	Creation	In 1996, the successful hemp trial study oversight by Manitoba Government indicated that hemp could be grown with undetectable amount of less than 0.003%THC. The study provides fundamental legitimacy for hemp legalization.
	Normative Legitimacy	Creation	After the success of the study, MHA strategically managed to effectively engage and communicate the result of the study to all stakeholders in order to develop the new norms and values for hemp foods.
	Regulatory legitimacy	Creation	In 1998, hemp was legalized in Canada; Health Canada introduced Industrial Hemp Regulations.
Commercialization	Cognitive legitimacy	Creation	Hemp entrepreneurs in the early years, has to spend a lot of energy on educating and promoting the hemp foods such as attend trade shows, promote on social medias and print brochures about hemp foods in terms of its nutritional values and difference of marijuana in order to build the culture that hemp is good for health.
	Cognitive legitimacy	Creation	One of the strategies Manitoba Harvest used in early years was Mike Fata, the Co-founder of the company, shared his personal story about hemp food direct correlation to the health benefits of hemp to build the positive image of hemp foods.

	Normative and regulatory legitimacy	Selection	Hemp entrepreneurs such as Mike Fata and Shawn Crew strategically chose to form- an ally with Food Development Centre, to conduct research, product development, production and conformance of the regulations.
	Cognitive, normative and regulatory legitimacy	Manipulation	Hemp entrepreneurs working closely with Government Manitoba agency such as Manitoba Trade and Investment to promote their hemp products via trade shows. Manitoba Trade and Investment worked with Canadian Government to put their companies and hemp products underneath the banner of Canada in order to leverage the brand equity of Canadian foods.
	Cognitive, normative and regulatory legitimacy	Creation	Hemp entrepreneurs actively conducting industrial research on creating new forms of hemp products, improving the hemp extraction technologies and other technologies in order to penetrate the market from various angles.
	Normative legitimacy	Conformance	Hemp entrepreneurs actively engage with IRAP funding advisors and comply with all the requirements in order to access IRAP funding for research.
	Normative and cognitive legitimacy	Conformance	Strategy Manitoba Harvest pursued was to get different kinds of mainstream production and quality certifications in order to gain trust and legitimacies from customers who believed in these certifications.
	Regulatory,	Creation	Early hemp entrepreneurs such as Shawn

	Normative and cognitive legitimacy		Crew, founded Canadian Hemp Trade Alliance to continuously promote Canadian hemp foods globally, establish a liaison between hemp entrepreneurs and government, continuously conducting research on hemp foods to advocate the industry development and serve the hemp industry stakeholders such as hemp farmers and potentially new hemp entrepreneurs.
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Legitimizing hemp began with the work of education and public outreach led by the hemp entrepreneurs. Hemp food advocates and entrepreneurs educated their communities about what hemp is on earth through different channels in order to change the perceptions of hemp and in turn gain cognitive legitimacy from the public. One of the strategies established was the Manitoba Hemp Awareness Committee to organize a hemp celebration event for engaging with the public and industrial stakeholders. Another strategy was to introduce hemp industry leader Chris Conrad to Winnipeg as the external moral resources to advocate the hemp industry in Canada and inspire the public. Lastly, UMHAC actively made and distributed educational materials to share the benefits of hemp. These public engagements and education works at the beginning provided fundamental legitimacy for hemp being legalized in the future.

Years later, with the establishment of the fundamental cognitive legitimacy from the public, UMHAC officially became the Manitoba Hemp Alliance in order to officially promote hemp and engage with the government. The establishment of the Manitoba Hemp Alliance led by hemp food entrepreneurs provided further institutional legitimacy to the potential hemp food industry. Later on, after successfully lobbying the Government of Manitoba to support and fund the hemp trial study, the hemp food industry gained further regulatory legitimacy from the

government. With government support and assistance, the result of the hemp trial study was accepted and approved by the government that hemp can be grown with virtually zero THC. Here, there are two key factors that resulted in the hemp food industry gaining strong legitimacy from the hemp trial study. First, the result of the study enhances the cognitive legitimacy of hemp. Second, as the study was funded and performed under the Government of Manitoba, it further enhanced the credibility of the study; and in turn further enhances the cognitive legitimacy of hemp. Due to the success of the hemp study and the continued lobby process of developing the hemp industry by hemp entrepreneurs, hemp food was legalized in Canada in 1998.

Based on the process of the legalization and interviews, entrepreneurs are the main drivers of the legalization process. As I17 said during the interview, “If the entrepreneurs had not been there, it would never have been legalized. We needed someone to push these buttons and make it happen.” In addition, as entrepreneurs are social individuals, for hemp food entrepreneurs, in order to gain enough legitimate power to lobby the government or change the regulation, it usually required starting from the bottom of the chain, which is the public. In this case, entrepreneurs chose to start with education and public outreach to gain the fundamental cognitive legitimacy in order to build the culture of hemp that can benefit the community broadly. Later on, formalizing the Manitoba Hemp Awareness Committee to Manitoba Hemp Alliance helped to gain further normative legitimacy to lobby the Government of Manitoba. During the lobby process, entrepreneurs presented the hemp information with a pamphlet title called “The Trillion Dollar Crop” to the Manitoba Agriculture Minister at a first-time meeting, which successfully got the attention from the Minister and he asked for a formal business plan after the meeting. The pamphlet is the marketing strategy to enhance the legitimacy by strengthening the

hedonic legitimacy of hemp. Eventually, the successful lobby provides the necessary regulatory legitimacy for entrepreneurs to access government resources and provides funds to complete the study and legalize the hemp. Thus, it is not hard to tell that cognitive legitimacy is the first fundamental legitimacy hemp food entrepreneur choice to gain at the beginning before pursuing other forms of legitimacy.

Thus, based on the case study of Manitoba hemp food industry, it clearly indicates that in nascent market or non-existing market, it is very hard for individual entrepreneurs to directly approach government for lobbying to create rules and regulations that benefits the new venture and industry without gaining support from other industry stakeholders for two reasons. Firstly, in non-existed markets, there is no well-defined regulation to follow and the market structure is unclear or does not even exist. Thus, institutional entrepreneurs would not be able to gain regulatory legitimacy just by acting conformance strategy and applying the existing industrial regulation directly. Secondly, it is really hard to expect government to be the pioneer to create rules and regulations before it sees the potential that the new rules and regulations will be accepted and benefit the community at large while meeting the demand of social norms and values. Thus, entrepreneurs tend to gain cognitive legitimacy from the stakeholders via strategically allying together and leveraging cognitive legitimacy from the public in order to gain bargaining power to gradually legitimize the industry and lobby the government for regulation change.

*Proposition 1: In creating an industry, institutional entrepreneurs tend to gain cognitive legitimacy before gaining normative and regulatory legitimacy.*

In addition, in the Manitoba hemp case, hemp food entrepreneurs have successfully obtained the cognitive legitimacy by allying multiple groups of stakeholders in Manitoba via various strategies to pursue the opportunity, organizing public events to educate the benefits of hemp and managing the public message for the public Medias. In addition, the fundamental works, the hemp food entrepreneurs did to establishing UMHAC, Manitoba Hemp Alliance and Canada Hemp Trade Alliance later are critical for successfully legalizing and commercializing the hemp food industry. The creation of the association and alliance by hemp food entrepreneurs provide an effective platform for all the groups of stakeholders to get involved, share the values among the parties, build the new culture of developing the hemp industry, attract the potential and interested players into the new industry, develop new norms within the industry and communicate collectively and publicly with government and other stakeholders, which is critical for developing a new industry. Thus, the proposition below is based on the analysis of the case study.

#### Proposition 2

*Institutional entrepreneurs can acquire cognitive legitimacy by developing the value, culture and norm, which are widely held and shared with the stakeholders of the nascent industry.*

Certainly, the hemp food industry story does not end at the point of legalization. After legalizing industrial hemp, there are still many challenges, which hemp food entrepreneurs have to overcome in order to build the successful venture and long-term sustainable industry. The key challenge is to build the market because hemp food is a brand-new industry; very few people

know about hemp or consider hemp as food. Entrepreneurs have to work very hard to build and educate the market. When I asked questions about the challenges and strategy for commercializing the hemp food, educating the consumers is the common answer for their questions. For instance, Manitoba Harvest, the largest hemp food company in the world, mentioned their continuous efforts on educating the consumers about the hemp foods. Some of the strategies Manitoba Harvest used to educate the consumers are distributing brochures on hemp nutrition, attending trade shows, and engaging social media, Mike Fata, the CEO of Manitoba Harvest, shared his personal story and experience about hems direct impact on his health. They are all strategies to help companies gain the cognitive legitimacy from the market. Indeed, other companies such as Hemp Oil Canada and CanSat processors were using similar strategies to educate the market. Thus, all together, these ventures enhance the overall legitimacy of the hemp food industry.

Certainly, it is not easy to establish the market and gain the legitimacy by implementing these strategies without support from other parties. There were limited funding opportunities to entrepreneurs to access for the marketing campaign and limited market size at the beginning for entrepreneurs to grow the business. For instance, as I17 stated in the interview, “I remembered the first trade show I ever went with them (Manitoba Harvest and Hemp Oil Canada) a few years ago, every second person, even more, would come up and ask questions such as, is this making me high? Or can I smoke this?” Thus, entrepreneurs had to use different strategies to leverage other sources of legitimacy to further enhance the company and product legitimacy.

One of the strategies was discussed in the early section, hemp food entrepreneurs, Shaun W.Crew, organized and established the Canadian Hemp Trade Alliance in order to serve the stakeholders involved in the hemp food industry and constantly conduct hemp relevant

researches all the time for advocating the hemp food industry. The strategy enhances the normative legitimacy for all hemp stakeholders by continuously providing and promoting the social, economic and functional values of the hemp foods to the society. In addition, the ongoing research projects and publications can enhance the cognitive legitimacy for all hemp companies as well.

Additionally, individual companies such as Manitoba Harvest and Hemp Oil Canada were actively engaged with government institutions such as Food Development Centre in Manitoba to collectively work on product development, production process engineering and licensing process. By working with these government agencies directly and developing the product, individual companies could further enhance their cognitive, normative and regulatory legitimacies respectively.

In addition, based on the discussion with I11 about company's efforts on gaining legitimacy, the Senior Manager of Quality, one of the strategies is to focus on product quality and technology and get a lot of certificates. With third party certifications, such as Non GMO, Verified, and Grade A+, Manitoba Harvest has made it easier to speak the language of legitimacy with those parties, which, in turn makes it easier to gain access to broader international markets. It is quite an effective strategy that new ventures apply the industry's standards, norms and practices and technology to acquire legitimacy (Aldrich & Fiol, 1994; Deeds et al., 1997; Hunt & Aldrich, 1996; Scott, 1995b; Suchman, 1995; Van de Ven, 1993; Zucker, 1998). Thus, these certificates enhance company's overall legitimacies.

Furthermore, the other strategy that creates credibility for hemp food ventures is to attend international trade shows, explained by I17. Manitoba Trade and Investment, in the early stage of the hemp food industry development, paid for the space at international trade shows and had the

companies attend at no cost to them. For many years, Manitoba Trade and Investment has subsidized the space until hemp became a little bit more known. In addition, Manitoba Trade and Investment worked with the Government of Canada in order to promote themselves as Canada so hemp food companies can present themselves underneath the brand banner of Canada, not just the Manitoba banner, which enhances the credibility of the companies. I17 explained that for the food industry, in people's minds, Canada means clean, fresh air, clean water, no pollution, and other positive images. By establishing the brand connection with the Government of Canada, it could enhance the company's cognitive legitimacy and normative legitimacy as well.

Thus, based on the Manitoba hemp food case, hemp food entrepreneurs and advocate had successfully established Canada Hemp Trade Alliance, allied with Food Development Center, Manitoba Trade and Investment, World Trade Center Winnipeg and other institutions to continually gain legitimacy for hemp foods.

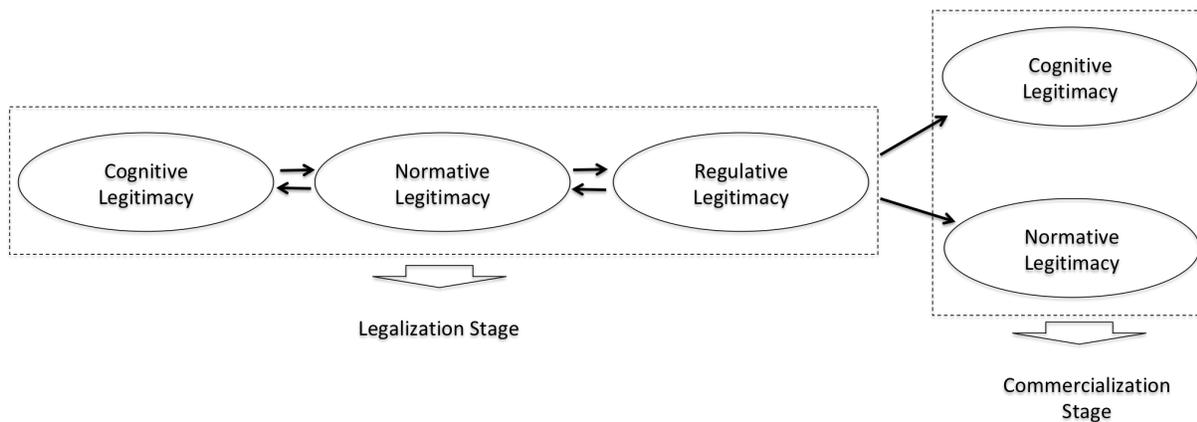
### Proposition 3

*Institutional entrepreneurs can better and sustainably acquire legitimacy by establishing a third party such as industry association, to effectively organize and ally with industry peers, partners and stakeholders together in a meaningful way.*

The diagram 5-3 below describes the process and relationship between the three kinds of legitimacy in the stage of legalization and commercialization during the establishment and development of the hemp food industry based on the analysis of the case and proposition. Based on the case study, institutional entrepreneurs will need to acquire cognitive legitimacy firstly as the foundation to acquire normative legitimacy and regulatory legitimacy during the legalization

stage. As the institutional entrepreneurs eventually acquired regulatory legitimacy and passed legalization stage, entrepreneurs will use various strategies as discussed to continuously acquire cognitive and normative legitimacy in order to further develop the business and industry in the commercialization stage. It is worth mentioning, the focus of entrepreneurs' efforts at each stage is different. At legalization stage, the purpose for institutional entrepreneurs to gain legitimacy is to legalize the industry, so these strategies are more congregate and not business focused. By contrast, at the commercialization stage, the strategies entrepreneur used for gaining legitimacy are business focused, so these strategies are more company specific and business oriented. Thus, the strategy entrepreneurs used in the legalization stage are more social oriented, compare to the strategies in commercialization stage which are more business development focused.

Diagram 5-3



Overall, by implementing these legitimation strategies collectively with industry stakeholders, hemp food entrepreneurs successfully established the hemp food market in health food and nutritional food industry sector. Hemp food gradually became one of the mainstream health food options in people's mind. It is important to understand that industries have varied degrees of legitimacy based on the different kinds of actions and results stemming from these collective actions of industry members (Monica & Gerald 2002). Today, when hemp food

entrepreneurs go to trade shows, it is rare to hear questions such as whether hemp will make you sick or not, anymore. People know the value of the hemp food and categorize it into the health food sector. Thus, hemp food industry is going to continue to grow and attract many more entrepreneurs to join the industry.

## **6. Conclusion and discussion**

This thesis explores the practices and strategies of institutional entrepreneurs and how institutional entrepreneurs recognized the opportunity, together successfully legalized and commercialized the hemp food industry. The diversified sources of the data - the use of interviews with hemp food industry business leaders, government agencies, institutions and farmers, as well as the data available in the newspapers, videos, articles and online resources - allows this thesis to capture the overall picture of the specific actions and strategies taken by hemp food entrepreneurs. In addition, the data from multiple sources and industry stakeholders allow for the detailed examination of the actions of other stakeholders of the day such as government agencies, universities, farmers and industrial institutions, to gain a comprehensive understanding of how these parties interact with hemp food entrepreneurs to legitimize the hemp food industry.

Hemp food entrepreneurs worked together to ally interests from different groups of stakeholders, creating Manitoba Hemp Association to lobby the government are all required institutional work to successfully legalize the hemp industry in Manitoba Canada. Furthermore, introducing the hemp food products into the health sector, establishing the Canadian Hemp Trade Alliance, constantly improving the production process, and obtaining higher level of production certifications and promoting the health benefits of hemp food products by embedding Mike Fata's personal experience should also be considered entrepreneurial actions of required institutional work so as to fully realize the opportunity during the hemp food commercialization stage.

Manitoba hemp food entrepreneur's actions and strategies of creating the opportunity illustrated that the institutional formation process involves many different practices occurring

chronologically. From past literature, much of the paper considered opportunity creation as an event that was out of entrepreneurs' control. In addition, these literatures considered that institutional formation and opportunity exploitation as separate events. However, in Manitoba's hemp's case, entrepreneurs are one of the main drivers to push and advocate the legalization and commercialization of the industrial hemp.

Another contribution of this thesis is to recognize and propose a framework of the profit seeking entrepreneurs into the institutional work of industry formation, entrepreneurs need to utilize different means such as creating association, utilizing moral resources, creating slogan of "The Trillion Dollar Crop" in order to gain support from various parties of stakeholders. For Manitoba hemp case, the stakeholders would be farmers, entrepreneurs, research institutions, government and consumers. By gaining support from industrial stakeholders, entrepreneurs gain strong cognitive legitimacy from society at large in order to lobby the government to revise the regulation. We certainly acknowledge that there are different means of acquiring cognitive legitimacy rather than the tactics being presented in Manitoba hemp's case. However, the essence of gaining cognitive legitimacy in the early stage is vital for institutional work of forming new industry.

The other contribution of this thesis is to recognize how different kinds of legitimacy work together to enhance each other in the institutional work of industry formation. Gaining legitimacy from one kind can strongly influence the potential outcome to gain other kinds of legitimacy. As illustrated in this thesis, hemp food entrepreneurs initially formed a small group of Hemp Awareness Committee at the University of Manitoba to promote hemp benefits and then engaged with the public. By gaining more support, it is easier for hemp entrepreneurs to form Manitoba Hemp Alliance afterwards to lobby the government officials. Thus, the

fundamental works of gaining cognitive legitimacy at the time was critical for later success of forming Manitoba Hemp Alliance and lobbying the government officials to conduct the hemp study, which provides the foundation of hemp legalization.

Another insight is that the legitimacy model and legitimation strategy table proposed in this thesis can serve as a framework and guidance for future institutional entrepreneurs, who choose to challenge the existing social norms and values to create new rules and regulations in order to move forward with their businesses. The proposed model comprehensively explains the kinds of legitimacy, legitimation strategies and examples associated within two stages of industry development. Entrepreneurs can gain insights into the model and consider how to align their venture's strategy with the institutional works and strategies. For instance, allying with industrial partners and organizing the Canadian Hemp Trade Alliance was a great strategy for hemp food entrepreneurs to actively engage with government, entrepreneurs and the public and meanwhile gain support from government funding, which is a great lesson to learn for new institutional entrepreneurs.

Lastly, from the theory contribution point of view, the thesis filled the literature gap by providing insights on some of the research questions based on the proposed subsequent research (Zimmerman & Zeitz, 2002). First, the legitimacy theory has not been tested empirically based on real industry case (Zimmerman & Zeitz, 2002). This thesis provides a good setting to test some of the legitimacy theories in real industry case. Secondly, the importance of acquiring legitimacy from different sources is still unknown (Zimmerman & Zeitz, 2002). This thesis provides the framework for explaining the relationship of the three kinds of legitimacy in industry development. Thirdly, the condition under which legitimation strategy is most effective to acquire legitimacy and build industry is largely unknown as well (Zimmerman & Zeitz, 2002).

This thesis provides a lot of examples based on the real case on how entrepreneurs use different legitimation strategies to acquire legitimacy under the different condition. Last but not the least, to the extent that entrepreneurs' awareness of acquiring legitimacy may impact business success may interesting to know (Zimmerman & Zeitz, 2002). This thesis has shown that institutional entrepreneurs are aware of gain legitimacy as one of the key factors to their business success. Thus, this thesis is a very good subsequent study on legitimacy research.

Hemp food entrepreneurs' practices outside of the well-established industry, from legalizing the hemp food industry, forming hemp institutions, creating the new regulations and rules, funding the relevant hemp research projects and educating the hemp food consumers in order to increase the market demand as a whole, are all critical works for a brand-new industry. As stated in one of the quotes from the interview, "if the entrepreneurs had not been there, it would never have been legalized." Had entrepreneurs only been concerned with developing opportunity and relying on conformance of the existing Canadian agricultural industry rules and regulation, the hemp opportunity may never have been developed. Through numerous works of forming the institutions, gaining government support and changing the misperception of hemp from the public market, entrepreneurs went through the whole cycle of forming the industry and building a successful business. Thus, this thesis brings the completed process of institutional work of forming the industry and pursuing the business opportunity.

### **6.1. Limitation and Future research**

Based on our proposed model about the process of building up the legitimacy for exploring the business opportunity and co-creating the new institution, the case study method of Manitoba hemp may be descriptive as opposed to critical and storytelling as opposed to

analytical. Thus, by studying a single case, it may remain the question of generalizability. In this thesis, we limited the concerns by having stated theory, proposed model and propositions that have been confirmed through the case study. By building the theory from existing theory as the starting point, some of the drawbacks on the use of single case research are overcome.

However, the findings from the single research method should not be overgeneralized. The proposed positions and models from the thesis need more process research to confirm. While the Manitoba hemp case study in this thesis shed light on theories about institutional entrepreneurs, more studies such as case studies from other industries, should be followed to test the findings from this thesis and understand the dynamic shift of legitimate power in different institutional working stages and industry settings.

In addition, the hemp industry is still in the early development stage. This thesis focuses mainly on hemp food sector as part of the hemp industry. However, there are other applications about hemp that are currently under development. As I18 mentioned during the interview, there are many potential industries that hemp can add values to such as construction materials, fuel and clothing, which are not well established yet. These industries are waiting for the institutional entrepreneurs to explore and develop. As the industry continues to develop, there are more research opportunities to study about how hemp entrepreneurs develop the other industries; and will they follow the similar process and strategies as they did in hemp food industry.

## **6.2. Conclusion**

This thesis examines the Manitoba hemp case in which the profit-seeking entrepreneurs have to engage in institutional work as part of the opportunity exploration process. Furthermore, the thesis extends the theory on institutional work by proposing the model about the process of

institutional entrepreneurs to gain different kinds of legitimacy in various stages in order to create a new industry. Moreover, the thesis examines the relationship between different kinds of legitimacy during the legalization and commercialization process. In addition, this thesis illustrates that the whole legitimation process of building a company to exploit an opportunity and forming a new industry can be achieved with collective works done by various groups of stakeholders. In Manitoba hemp case, it took four years for the entrepreneurs to legalize the Canadian hemp industry and the dynamic process of commercializing the hemp products is still currently under way. Lastly, this thesis offers entrepreneurs a better understanding of how to design venture's long-term strategy in order to balance both business development and institutional works for the long-term sustainable growth. Perhaps this thesis will help more institutional entrepreneurs to build their businesses and more new industries will be established accordingly.

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## **8. Appendices**

### **Appendix A: Hemp in China**

As the earliest nation to cultivate and use hemp for the purposes of food, textile, medicine, paper and so on, China now is the No.1 hemp producer in the world (Marijuana Business Daily, 2017). Learning the development of hemp and its wide application in China may enhance our understanding to this valuable plant. Especially, now Chinese government keeps reviewing the hemp industry value chain for further development and now tries to attract cooperation partners from Europe and North America, to boost the economic scale for this industry (Bio-based News, 2017).

Hemp is also called “ma” , “da-ma” or “han-ma” in Chinese, depending on what purpose hemp will be used for.

The hemp plant may have developed from the northern part of China, and was the first fiber plant to be grown there at the dawn of human civilization. According to the historical record, cotton originates from India while flax is from the Mediterranean, and these two main crops did not come into use until 6000 to 5000 BC, which is more than thousands of years later than the application of hemp. In China, hemp was highly regarded and the country named itself “land of mulberry and hemp”, this laid the foundation of hemp for being the major cultivated crop in China (Rexsearch, 2010).

Abundant archaeological evidence shows that the continuous hemp cultivation and usage has been from the prehistoric time in China. Archaeologists unveiled a 12,000 year old village site in the Taiwan area and there, they identified the mark of the twisted hemp cord on the

surface of pottery, and a rod-shaped stone beater used to grind hemp (Rexsearch, 2010).

Although the archaeological evidence of the hemp usage has disappeared, the trace of hemp discovered during this time age reveals that hemp may be one of the first human cultivation crops (Rediscover Hemp, 2016).

The trace of hemp has been successfully identified in other ancient villages in China. Archaeologists excavated some textiles made of hemp in a late Stone Age site in Zhejiang Province. Samples of hemp cloth were left by the Kung-Shan culture that can be dated back to 4000 years ago (Rexsearch, 2010). In ancient China, peasants usually wore clothing made of hemp. It has evident proof that people lived during the time of Liangzhu culture (3400BC-2250BC), which is the last Neolithic jade culture in the Yangtze River Delta of China (Freer Sackler, 2017), already started to consume hemp and this was tracked from two pottery vessels found in one Lin-chia site. Archaeologists recognized some carbonized fruits of cannabis in the ancient site and this implied that the plants had been burnt and in consequence left the seeds behind. Other remaining marks of hemp have been spotted at the Chi-Chia sites, a village in Gansu Province (Rexsearch, 2010).

### **Hemp for paper making in China**

Paper is one of the four great inventions of China. Based on what has been recorded in Hou-Han Shu, a historical record of Eastern Han Dynasty, Cai Lun invented the paper in 105 AD (International Hemp Association, 1995). However, in fact, Marquis Cai Lun can only be regarded as the master of papermaking technology, he was the one who improved the process of papermaking rather than invention (Paper Discovery Center, 2017). Paper had already emerged in Western Han Dynasty (206BC-24AD), which was at least 200 years earlier than Cai Lun's era (Ancient History, 2013).

People back then felt frustrated to carry the heavy bamboo and wooden tablet. Hemp fibers, for its durability and light texture, thus, were used to make paper in ancient China. Ba Qiao paper known as the earliest paper, which was made during Western Han Dynasty, was discovered in an ancient tomb, dating no later than 156AD-87AD (Totally History, 2012). Experimental results indicated that Ba Qiao paper is made from hemp fiber and it is now presented in Shaanxi Museum (China Index, 2010). However, due to its roughness, high producing cost, and less production volume, the hemp fiber paper was not wildly prevalent at that time.

Archaeologists unearthed a site dating from 140BC-87BC near Xi'an in ShaanXi province, and found fragmented hemp fiber was used to produce the paper. The archaeological proofs of hemp paper were also excavated from ancient tombs in Shanxi and Xinjiang Province respectively, whose age can be traced back to Han Dynasty (Rexsearch, 2010).

Besides for the recording purpose, hemp paper was used to make shoes. White hemp paper shoes sewn with white hemp thread, and a piece of hemp fabric, were also recovered (Li, 1974).

### **Hemp as a medicine in China**

Hemp has a long history of being applied as one of the traditional medicines. All parts of the plant, including its seeds, leaves and abstracted oil, roots and even flowers have been fully utilized for oral and topical medication and euphoriant use as well (International Hemp Association, 1995).

Based on the notes of Hou Han-Shu, it was Hua Tuo(141-208AD), one great physician in the history of China, who formulated Ma Fei San, Cannabis seeds and wine, for a patient who

needed general anaesthesia for a complicated abdominal surgery (International Hemp Association, 1995). It is said Ma Fei San is the earliest anaesthetic application for the surgical operation (Hoizey, Dominique & Marie, 1993).

The Cannabis Seeds, called “Huo Ma Ren” in Mandrin, is a traditional medicine, with natural sweetness and mildness, is applied for diseases related to stomach, spleen and large intestines (Global hemp, 2014).

There are many applications of Huo Ma Ren (Hemp Seed). It is usually prescribed as a laxative for the purpose of constipation relief. For patients who are suffering from pains, nausea and nervous disorders, hemp seed also can clinically play as a sedative for the treatment (Global hemp, 2014).

Archaeological evidence showed hemp was used as a euphoriant quite long ago. Pen Ts'ao Jing, the oldest pharmacopeia recording Chinese agriculture and medicinal plants, says that "Ma fen (Cannabis seed) . . . if taken as an overdose will generate hallucinations (literally 'seeing devils'). If taken over a long period of time, it makes one communicate with spirits and lightens one's body" (International Hemp Association, 1995).

The Ming'i Pieh'lu, written by the famous physician Tao Hong Jing in the 5th century AD, says that, "Ma fen is not much used in prescriptions. Necromancers use it in combination with ginseng to set forward time in order to reveal future events" (International Hemp Association, 1995).

It needs to point out that Ma Fen is described as spicy while hemp seed is sweet and when taken, Ma Fen will cause psychoactive effects. There is likelihood that the Pen Ts'ao Jing and Ming'i Pieh'lu were actually mentioning the resinous bract that wraps the seed, rather than the seed itself (International Hemp Association, 1995).

## **Hemp as a food crop in China**

Ancient Chinese people took hemp seeds as a part of their daily diet. The Book of Odes, the oldest existing collection of Chinese poetry, has mentioned that people back then used hemp seeds for food by saying, “Farmers take hemp seeds in September” (International Hemp Association, 1995).

Farmers cultivated hemp as a common see crop throughout the Spring and Autumn period (770 to 476 BC), Warring States period (476 to 221 BC), the Qin dynasty (221 to 207 BC), and the Han dynasty (206 BC to 220 AD).

The Book of Rites, a collection of texts describing the social forms, administration, and ceremonial rites of the Zhou dynasty, classified hemp as “five grains” of ancient China, together with rice, wheat, soybeans and barley, which have been identified as the essence to the emperor’s diet (International Hemp Association, 1995). Hemp seed played the role as a staple of the Chinese diet through the 10th century even though other higher quality grains became more widespread (Li, 1974).

From the ruins of Jin dynasty (265AD to 420AD) located in Henan Province, archaeologists found the hemp seeds and epigraph imprinted on bones that contained the ancient Chinese characters of Ma (hemp) (Rexsearch, 2010).

Hemp seeds were also found stored together with rice, wheat and millet amongst the relics unearthed from the Ma Wang Dui tomb near Changsha in Hunan Province, and those relics were identified as sacrificial items by the historians (Rexsearch, 2010). Archaeologists also discovered the remains of hemp seeds inside pottery, which was excavated from a Han dynasty tomb in Hunan Province (Rexsearch, 2010).

## **Hemp as a fiber crop in China**

The hemp plant had been applied for different uses in the ancient China. The major application of the hemp fiber was to generate yarn and weave cloth. In fact, before cotton was introduced to China during 960 AD to 1127 AD, ancient Chinese people mainly wore clothing made by hemp textile. The application of hemp as a fiber crop for cordage and textiles has been recorded in the ancient Chinese books along with archaeological discoveries (International Hemp Association, 1995).

In the ancient China, hemp cloth was closely connected to the funeral rites. For people who lost their family members, usually they would wear mourning apparel, which in most of the cases was made of hemp. There is a Chinese idiom that says Pi Ma Dai Xiao, describing people who wear hemp cloth to mourn their parents and relatives.

Besides, people usually used hemp cloth to wrap corpses before funerals. Corpses covered by hemp cloth were discovered from Western Han Dynasty (206 BC to 24 AD) tombs in Gansu Province. According to Li (1974), the corpse was shrouded in hemp cloth and tied with hemp ropes, covered with silk dresses.

Archaeologists uncovered a scrap of hemp textile in the Ma Wang Dui tomb near in Hunan Province. Careful experiment result indicated that the fiber diameter was 21.83 microns, and the fiber cross sectional area was 153.01 square microns. Both values are very close to those common for modern day hemp products (International Hemp Association, 1995). The cloth was weaved pretty tight, which is a sign that weaving techniques were quite sophisticated at that time (International Hemp Association, 1995).

The archaeological data shows that the ancient Chinese had already known how to cultivate hemp and use its fiber to weave cloth at a very early date.

One poem named 'The Pool in Front of the Main Gate', which had been recorded in the Book of Odes, mentioned hemp as follows: "The pool in front of the east gate could be used to Ou Ma. The pool in front of the east gate could be used to Ou Ning . . .". The phrase 'Ou Ma' indicates 'to ret hemp' and the phrase 'Ou Ning' indicate 'to ret high-quality white hemp' (International Hemp Association, 1995).

The Er Ya, the oldest existing Chinese dictionary and encyclopaedia, which was edited between the Spring and Autumn Period (the 4th Century BC) and Western Han Dynasty (206BC to 24AD), mentioned hemp of its key nature with one sentence (International Hemp Association, 1995).

"Male hemp is called xi ma while female one is called Ju ma." This quote clearly stated the hemp' nature of dioecious sexuality. There are other descriptions of hemp in this book, such as, "The fiber of Xi Ma is thin and soft, and it is suitable for spinning cloth, while the fiber of Ju ma is thick and tough and its seeds can be taken as food (International Hemp Association, 1995).

The ancient Orientals also used hemp to make bowstrings as they found that fibers extracted from hemp were much stronger than the ones from bamboo, and the hemp bowstrings did provide the Chinese army more chances to prevail against the enemies (International Hemp Association, 1995).



Farmer Collector	<a href="https://www.farmcollector.com/farm-life/strategic-fibers">https://www.farmcollector.com/farm-life/strategic-fibers</a>
Global Hemp	<a href="http://www.globalhemp.com/1938/02/new-billion-dollar-crop.html">http://www.globalhemp.com/1938/02/new-billion-dollar-crop.html</a> <a href="http://www.globalhemp.com/2000/05/canadian-auto-workers-caw-perspective-on-the-political-debate-on-industrial-hemp.html">http://www.globalhemp.com/2000/05/canadian-auto-workers-caw-perspective-on-the-political-debate-on-industrial-hemp.html</a> <a href="http://www.globalhemp.com/2014/03/the-use-of-hemp-in-traditional-chinese-medicine.html">http://www.globalhemp.com/2014/03/the-use-of-hemp-in-traditional-chinese-medicine.html</a>
Global News	<a href="https://globalnews.ca/news/3264294/canadian-farmers-say-government-regulation-of-hemp-crops-costing-millions-of-dollars/">https://globalnews.ca/news/3264294/canadian-farmers-say-government-regulation-of-hemp-crops-costing-millions-of-dollars/</a>
Government of Canada	<a href="https://www.canada.ca/en/health-canada/services/health-concerns/controlled-substances-precursor-chemicals/industrial-hemp/about-hemp-canada-hemp-industry/frequently-asked-questions.html#a7">https://www.canada.ca/en/health-canada/services/health-concerns/controlled-substances-precursor-chemicals/industrial-hemp/about-hemp-canada-hemp-industry/frequently-asked-questions.html#a7</a>
Government of Manitoba	<a href="https://www.gov.mb.ca/agriculture/crops/production/hemp.html">https://www.gov.mb.ca/agriculture/crops/production/hemp.html</a> <a href="https://www.gov.mb.ca/agriculture/innovation-and-research/featured-articles/hemp-an-up-and-coming-crop-in-manitoba.html">https://www.gov.mb.ca/agriculture/innovation-and-research/featured-articles/hemp-an-up-and-coming-crop-in-manitoba.html</a>
Grainews	<a href="https://www.grainews.ca/2017/02/02/growing-demand-means-more-hemp-acres/">https://www.grainews.ca/2017/02/02/growing-demand-means-more-hemp-acres/</a>
Hemp.com	<a href="http://www.hemp.com/history-of-hemp/marihuana-tax-act-of-1937/">http://www.hemp.com/history-of-hemp/marihuana-tax-act-of-1937/</a> <a href="http://www.hemp.com/2014/07/5-facts-about-hemp-you-wont-believe/">http://www.hemp.com/2014/07/5-facts-about-hemp-you-wont-believe/</a>
Hemp History Week	<a href="https://hemphistoryweek.com/about/hemp-history/">https://hemphistoryweek.com/about/hemp-history/</a>
Hemp Oil Canada	<a href="http://www.hempoilcan.com/quality/certifications-2/">http://www.hempoilcan.com/quality/certifications-2/</a>
International Hemp Association	<a href="http://www.druglibrary.org/olsen/hemp/iha/iha02111.html">http://www.druglibrary.org/olsen/hemp/iha/iha02111.html</a> <a href="http://www.internationalhempassociation.org/jiha/jiha6208.html">http://www.internationalhempassociation.org/jiha/jiha6208.html</a>
Kentucky Department of Agriculture	<a href="http://www.kyagr.com/Kentucky-AGNEWS/press-releases/Comer-growers-industry-leaders-announce-array-of-hemp-projects-business-initiatives.html">http://www.kyagr.com/Kentucky-AGNEWS/press-releases/Comer-growers-industry-leaders-announce-array-of-hemp-projects-business-initiatives.html</a>
Leaf Science	<a href="https://www.leafscience.com/2017/11/09/what-is-thc-tetrahydrocannabinol/">https://www.leafscience.com/2017/11/09/what-is-thc-tetrahydrocannabinol/</a>

Manitoba Harvest	<a href="https://manitobaharvest.com/our-story/">https://manitobaharvest.com/our-story/</a> <a href="https://manitobaharvest.com/media-press/ceo-mike-fata-honoured-eyes-entrepreneur-year/">https://manitobaharvest.com/media-press/ceo-mike-fata-honoured-eyes-entrepreneur-year/</a> <a href="https://manitobaharvest.com/hemp-academy/lessons/the-comeback/">https://manitobaharvest.com/hemp-academy/lessons/the-comeback/</a> <a href="https://manitobaharvest.com/hemp-academy/lessons/hemp-history-timeline/">https://manitobaharvest.com/hemp-academy/lessons/hemp-history-timeline/</a>
Manitoba Trade and Investment	<a href="http://www.gov.mb.ca/trade/globaltrade/agrifood/commodity/industrial_hemp.html">http://www.gov.mb.ca/trade/globaltrade/agrifood/commodity/industrial_hemp.html</a>
Marijuana Business Daily	<a href="https://mjbizdaily.com/canada-awaits-hemp-boom-companies-pivoting-capitalize-cbd/">https://mjbizdaily.com/canada-awaits-hemp-boom-companies-pivoting-capitalize-cbd/</a>
Marqaha	<a href="http://www.marqaha.com/cannabis-trivia">http://www.marqaha.com/cannabis-trivia</a>
Medicaldictionary	<a href="http://medicaldictionary.thefreedictionary.com/THC">http://medicaldictionary.thefreedictionary.com/THC</a>
MedicalJane	<a href="https://www.medicaljane.com/2015/01/14/the-differences-between-hemp-and-cannabis/">https://www.medicaljane.com/2015/01/14/the-differences-between-hemp-and-cannabis/</a>
Medical Marijuana, Inc.	<a href="https://news.medicalmarijuanainc.com/history-hemp-america/">https://news.medicalmarijuanainc.com/history-hemp-america/</a> <a href="https://news.medicalmarijuanainc.com/the-road-to-prohibition-why-did-america-make-marijuana-illegal-in-the-first-place/">https://news.medicalmarijuanainc.com/the-road-to-prohibition-why-did-america-make-marijuana-illegal-in-the-first-place/</a>
National Conference of State Legislatures	<a href="http://www.ncsl.org/research/agriculture-and-rural-development/state-industrial-hemp-statutes.aspx">http://www.ncsl.org/research/agriculture-and-rural-development/state-industrial-hemp-statutes.aspx</a>
Psychology Today	<a href="https://www.psychologytoday.com/blog/the-teenage-mind/201105/history-cannabis-in-ancient-china">https://www.psychologytoday.com/blog/the-teenage-mind/201105/history-cannabis-in-ancient-china</a>
Hightimes	<a href="https://hightimes.com/culture/pot-matters-the-industrial-hemp-farming-act-of-2017/">https://hightimes.com/culture/pot-matters-the-industrial-hemp-farming-act-of-2017/</a>
Rediscover Hemp	<a href="http://rediscoverhemp.com/inform/hemp-history-timeline-on-rediscoverhemp-com/">http://rediscoverhemp.com/inform/hemp-history-timeline-on-rediscoverhemp-com/</a>
Rexresearch	<a href="http://www.rexresearch.com/hhist/hhist1.htm">http://www.rexresearch.com/hhist/hhist1.htm</a>

The Guardian	<a href="https://www.theguardian.com/environment/2006/sep/27/society.conservationsandendangeredspecies">https://www.theguardian.com/environment/2006/sep/27/society.conservationsandendangeredspecies</a>
The history and development of the leading international drug control conventions	<a href="https://sencanada.ca/content/sen/committee/371/ille/library/history-e.htm">https://sencanada.ca/content/sen/committee/371/ille/library/history-e.htm</a>
The Truth about Hemp	<a href="http://www.truthaboutthemp.org/History.html">http://www.truthaboutthemp.org/History.html</a>
The Western Producer	<a href="http://www.producer.com/2017/02/manitoba-hemp-processor-doubles-contracts/">http://www.producer.com/2017/02/manitoba-hemp-processor-doubles-contracts/</a>
Totally History	<a href="http://totallyhistory.com/the-invention-of-paper/">http://totallyhistory.com/the-invention-of-paper/</a>
UK Hemp Association	<a href="https://www.ukhemp.co.uk/articles/a-brief-history-of-hemp-in-the-uk">https://www.ukhemp.co.uk/articles/a-brief-history-of-hemp-in-the-uk</a>
Youtube	<a href="https://www.youtube.com/watch?v=kjSV1pVDJOM">https://www.youtube.com/watch?v=kjSV1pVDJOM</a>