Journal of Business and Economics, ISSN 2155-7950, USA
May 2020 Volume 11, No. 5, pp. 505-512
Doi: 10.15341/jbe(2155-7950)/05.11.2020/001

http://www.academicstar.us

NAFTA 2.0: Changes and implications in Businesses and Logistics: US and Mexico

Miguel A. Sahagun[1], *Lindsey B. Watts*[2]
(1. High Point University, USA; 2. Expeditors International of Washington, Inc., USA)

Abstract: Cross-border trade has resulted in many trade agreements around the world. Producing over a trillion dollars of trade annually, the North American Free Trade Agreement (NAFTA) is one of the most successful of these agreements. NAFTA fundamentally reshaped the economic relations between the U.S., Canada, and Mexico. Soon after assuming the U.S. presidency, U.S. President Donald Trump called for a renegotiation of NAFTA, which resulted in the United States-Mexico-Canada Agreement (USMCA). USMCA seeks to address problems not considered under NAFTA. The changes in the original NAFTA involve three main areas for the U.S. and Mexico: rules of origin, intellectual property laws, and labor wages in the automotive industry in the U.S. and Mexico. This paper analyzes the significance of the changes for American and Mexican businesses as well as in logistics and offers potential strategies that can better equip companies in both territories to compete under the new rules.

Key words: Maquiladora; PITEX; IMMEX; NAFTA; USMCA
JEL code: M160

1. Introduction

The need to move goods among places reaches as far back as the rudimentary beginnings of civilization. As civilizations and their technologies evolved, this need came to include moving people, and, as a consequence, the technology for transporting goods and people has become more complex and far reaching. The apparatus that came into being to fulfill this need is now known as the logistics industry. Today it has a hand in moving every object we touch, and it is essential to international trade. International trade is defined as the exchange of capital, goods, and services across international borders. The increase in this trade demanded that this industry become faster and more efficient worldwide. As a result, national borders are beginning to blur, and supply chain management and the logistics industry are growing and becoming more critical to all types of businesses.

Various modes can be used to transport goods, though which is chosen depends upon the kind of goods that need to be transported. More often than not, more than one mode is necessary. While more developed countries may have substantial resources and the infrastructure to handle their industries' logistical needs, less developed countries may lack such things as a high-quality system of roads, up-to-date air cargo facilities, extensive railroads,

Miguel A. Sahagun, Ph.D., Assistant Professor of Marketing, High Point University; research areas: product and brand strategy, customer loyalty, customer satisfaction, and product adoption. Email: msahagun@highpoint.edu.
Lindsey B. Watts, B.S.B.A. in International Business, Ocean Exports Agent, Expeditors International of Washington, Inc.; research area: international business. Email: lwatts@highpoint.edu.

or even fleets of modern trucks. This difference in infrastructure is a key point to remember when talking about moving products between countries.

With the world population growing at an exponential rate, the demand for goods to be moved from one location to another continues to grow. It is no surprise, then, that logistic companies have been gathering data to learn which mode of transport is the most efficient and lucrative for any given logistics situation. To complicate matters, the rise of environmentally conscious businesses has created the drive to find more sustainable or green friendly ways to transport goods.

While logistics is a global topic, this paper focuses on the U.S. and Mexico, two of the signatories to NAFTA and the proposed USMCA. Although not yet approved by the U.S. Congress, all three participant countries, the third is Canada, recently concluded talks to create the USMCA, a renegotiation of NAFTA that involves many changes regarding trade between these countries. This paper analyzes what the changes could mean for American and Mexican businesses and offers potential strategies for both countries to be better equipped to compete under the new USMCA rules.

This paper begins with the history and basic terminology of the supply chain industry and how it affects trade among countries. Next, the paper discusses the various trade and manufacturing programs that exist between the U.S. and Mexico: maquiladoras, PITEX, and IMMEX. Third, the paper provides a brief overview of the original NAFTA agreement before focusing on some of its flaws and the changes incorporated into the USMCA. Finally, the paper analyzes what these changes could mean for American and Mexican businesses, what methods might be employed to adapt to the changes, and the effect the American political climate might have on the ratification of USMCA.

2. Literature Review

2.1 Logistics History

The word *logistics* originates from the Greek word λόγος, and it was primarily associated with the military. Military officers were responsible for the financing, supply, and distribution of materials (Islam, Meier, Aditjandra et al., 2012). However, it was not until the industrial revolution when businesses began paying attention to warehousing and material handling that the commercial logistics industry emerged ("Operations and Logistics", 2019). World War II led to further study of efficient military logistics. Logistics is the element of supply chain management that controls the flow of goods, commercial and military. The modern definition of logistics states that it is the service of transporting "goods from one point to another, warehousing them in a suitable place, inventory, packaging, and other administrative activities such as order processing" (Islam et al., 2012, p. 1).

There are two subcategories of logistics, inbound and outbound, and two corresponding methods for inventory control, push and pull. Buyers using the push technique purchase mass amounts of a product at a time. Buyers using the pull technique accept shipments only when a product is needed, a method commonly known as just-in-time purchasing. No matter the method employed, the bill of lading (BOL) remains integral to ensuring that the seller/exporter receives payment and the buyer/importer receives the product.

The 1960s through the 1980s was a time of rapid growth and sophistication of the logistics, especially with the appearance of the US Interstate Road System (Rose & Seely, 1990). Computers and software were added in the 1970s to keep records of inventory, plan routes, and create spreadsheets that enabled managers to keep better track of the process and pinpoint areas of inefficiency ("Importance of Transportation Management", 2019). When dealing with international logistics issues, matters become more complicated. When moving products between countries, it is key to consider the differences among countries in transport management, warehousing management, packaging and unitization, information processing, and inventory management in each country.

2.2 Maquiladora, PITEX, and IMMEX Programs

The maquiladora program started in the 1950s with the aim of "attracting foreign investment, increasing exports, and alleviating the high unemployment along the U.S.-Mexico border" (Rice, 1998, p. 368). They were successful and provided U.S. companies with lower manufacturing costs, which boosted Mexican employment, as intended. Another initiative, the Program for Temporary Imports to Promote Exports (PITEX), was created in 1990 as a way for Mexican domestic operations to better compete with maquiladoras. Compared to the maquiladora program, the main advantage of PITEX is unlimited domestic sales in the Mexican market whereas maquiladoras held the advantage of being exempt from value added taxes. Over time, the rules that forbade maquiladoras from domestic sales were slowly lifted and the Mexican government decided to combine the two programs in 2006.

As a result of this action, the Maquiladora Manufacturing Industry and Export Services, or IMMEX program, was created. The objective of IMMEX is "to promote the export of goods so Mexican companies may access international markets [while stimulating] modernization of the national manufacturing infrastructure by attracting specialized technology" (Cobos, 2012, p. 4). Concentrated in Mexico's six border states, IMMEX now includes over 6,171 facilities with an estimated 2,464,669 employees who work primarily in the manufacturing of transportation equipment, computer and electronic products, electrical equipment, and plastics and rubber products. Following the money sent home to Mexican families by relatives working in the U.S., commonly referred to as remittances, the exportation of crude oil and tourism, IMMEX is the fourth most important source of foreign currency in Mexico.

2.3 The Implementation of NAFTA

NAFTA helps ease trade between Mexico, the United States, and Canada. Inspired by the European Economic Community (EU), NAFTA was signed in 1993 and went into effect on January 1, 1994. The main goal of the agreement was to remove tariffs on national goods traded between the three countries (Bondarenko, 2019). It also required the countries to adopt measures against industrial theft and allow companies to sue for compensation any signatory country that violated the rules of the treaty. Several side agreements were also made to address labor or environmental issues that could arise because of NAFTA. Overall, Mexico's export revenue jumped by $350 billion USD between 1994 and 2013. During the same period, Mexico and U.S. trade rose 6.1%, valued at $557 billion USD. The border state of Texas handles 70% of that freight. Given that the three signatories are connected landmasses, the majority (63%) of freight is transported via truck. The remaining 47% is split between rail (15%), vessel (6.7%), pipeline (5.7%), air (3.9%), and other (5.3%) (Smallen, 2017).

However, the revenue increases came with negative effects. From the inception of NAFTA in 1994 until the present, the United States' goods-related trade deficit with Canada and Mexico has increased by $2 trillion USD (Jacobson, 2018). The increase of maquiladora factories along the U.S.-Mexico border has drastically increased pollution in Mexico. Solid waste production, for instance, increased by 108%, water pollution saw a 29% increase, and urban air had a 97% increase. Only 12% of hazardous waste is disposed of properly; 70% of it remains within Mexico's borders (Parsons). These effects, coupled with the decrease in American factory jobs, Mexican farms, and increased human trafficking, further expose the mixed results of NAFTA's ratification.

3. Discussion

3.1 NAFTA's Drawbacks

Because the supply chain industry grew rapidly, the 2000s saw the need to add several security measures aimed at better controlling issues that arose from this accelerated growth. In 2002, a Container Security Initiative was put in place to help with border security, and in 2010, California added the Supply Chain Transparency Law to fight Human Trafficking in the Global Supply Chain. Human trafficking puts about $130 million USD into the pockets of human smugglers known as "coyotes". To raise awareness about this issue so that it can be eradicated, January has been named National Slavery and Human Trafficking Prevention Month (Alster, 2018).

When U.S. President Trump took office in 2017, he promised to bring manufacturing jobs back to the U.S., and he threatened to withdraw the U.S. from the current NAFTA deal if significant changes were not enacted. Although President Trump was focused on enhancing the benefits America derived from the agreement, all three signatories were experiencing negative effects created by the original agreement. Approximately 150,000manufacturing jobs had been moved to Mexico from the U.S, primarily from the states of California, New York, Michigan, and Texas (Ben-Achour, 2017). Companies that remained would use the threat of moving against union organization. Forced to choose the factory over union support, "workers had little bargaining power [and] that suppressed wage growth" (Amadeo, 2019). Given the high level of subsidized American farms, rural Mexican farmers could not compete against the low cost of American corn and grains. Mexico also cut down on the number of subsidized farms to concentrate resources on large operations, which forced many small farms out of business. On the other side of the border, the American agricultural industry increased its exports to support 144,000 more jobs, and its revenue "increased from $8.7 billion USD in 1992 to $38.1 billion USD in 2016" (Smith, 2018, p. 13).

While the maquiladoras provided many manufacturing jobs along the U.S.-Mexico border, conditions for workers were sometimes less than ideal. According to the Continental Social Alliance, some workers had "no labor rights or health protections [and] workdays stretch out 12 hours or more" (Amadeo, 2019). NAFTA was supposed to improve the lives of workers, but it failed to live up to that promise.

Transporting freight between the U.S. and Mexico was also a problem. NAFTA was supposed to allow American and Mexican trucks unlimited access to each country; however, this provision was rescinded because of differences in safety regulations. Currently, trucks are permitted to travel 20 miles into Mexico or the U.S. before the freight must be transferred to trucks from the importing country. This transferring of freight requires advance coordination and thus creates potential problems with timing and raises costs.

The widespread implementation of advanced technology and the internet has made it increasingly difficult to protect intellectual property. Given that the internet was not widely used until the mid-to-late 1990s, NAFTA did not consider the impact of the internet when it was signed. The internet made it easier for smugglers to find ways to smuggle goods across borders where they could be sold at lower prices than locals were paying. These issues, coupled with the wage inequality that exists in the border region, form the base at which NAFTA 2.0 talks started. On September 30, 2018, representatives from the United States, Mexico, and Canada reached a deal and signed the USMCA.

USMCA's goal is to update NAFTA for the 21st Century. The key changes between the U.S. and Mexico involve three areas: the automotive industry, rules of origin, and intellectual property protections. To better support North American jobs, USMCA has set a minimum for what automobile manufacturers should pay their workers. Out of the total automotive content manufactured in North America, 40% to 45% must be "made by workers earning at least $16 USD per hour" ("USMCA Fact Sheet", 2018). Companies have five years to phase in this new wage requirement, an effort by the U.S. to close the wage gap between American and Mexican workers in this industry. Furthermore, to qualify for preferential, duty-free treatment under the proposed new agreement, 75% of auto content must be made in North America ("USMCA Fact Sheet", 2018). Currently, NAFTA calls for 62.5% of auto content to be manufactured in North America, so this boost of almost 13 percent is significant. Seventy percent of all materials used in the production of automobiles must originate in North America ("From NAFTA to USMCA", 2018). Also, geographic indications (GIs) will be placed on goods to identify their place of origin. The hope is that these changes will boost the economies of all three signatories and help level the playing field in the automotive industry.

USMCA also addresses issues relating to intellectual property and digital trade. The new chapter on intellectual property (IP) focuses on patents and trademarks, specifically for "biotech, financial services, and domain names" (Long, 2018, p. 15). Stricter standards that will better protect such digital works as music, movies, and books have been formulated. Limits on where data shared across borders can be stored and processed enhances and protects the global digital ecosystem ("USMCA Fact Sheet", 2018). USMCA will also create a Committee on Intellectual Property Rights that will be responsible for "strengthening border enforcement of intellectual property rights, increased information sharing regarding trade secret-related matters, [and] discussion of patent litigation" (Mayne, 2018, p. 2). While there is no guarantee that products will be 100% protected, USMCA will provide uniformity in registering, maintaining, and enforcing patent protections and the flow of digital data.

4. Conclusion

4.1 Implications of USMCA

How will these changes affect businesses and consumers? The effects of the new automobile labor laws and the rules of origin will be widespread. With the automobile wage requirement, "automakers can't rely heavily on cheap Mexican labor now" (Long, 2018, p. 11). With increased production costs, consumers will see a hike in the prices of new cars and a decline in selection. A survey of auto executives found that many think "production costs will increase by 10% over the next three years…[and] agree that these increases will result in higher costs for consumers" (Nerad, 2019, p. 3). These price increases particularly pertain to small cars produced in Mexico that may no longer apply for duty-free border transport, but the automotive industry as a whole is likely to see a jump in prices.

There is a question about how car companies will adjust to these new rules. They might move facilities to countries where they can still rely on a cheap source of labor. With regards to the rules of origin, Mexico has agreed to raise the "value at which a product becomes subject to customs duties or taxes" (deminimis shipment value level) from $50 to $100 USD (Bearth, 2018, p. 12). This rise in value will ease the sale of goods between the U.S. and Mexico, thereby making the market more attractive for businesses. Freight transporters may see an increase in small package shipments across borders, but they are uncertain how this will affect large-scale shipments.

While not happy about the high production costs involved with the new deal, many automotive executives are happy about the possible long-term effects of USMCA. Short term, USMCA removes the threat of a tariff fight between countries. Many executives believe that the increased percentage of parts sourced from the North will boost vehicle production in North America. The added production costs can be balanced with changes to the supply chain. However, supply chains may need to be expanded to source the 70% of parts needed to meet the quota, thus possibly creating more freight to be moved by truck and train. This will boost profitability for freight transport companies, a hidden perk to this new deal. Because the USMCA still needs to be ratified by the signatory governments and that it will take several years to take full effect, the overall effect on the auto industry is uncertain.

While the new intellectual property laws may have some costs associated with them, the new changes will prove helpful to inventors and companies. With heightened security for intellectual property and a crackdown on IP theft, citizens and companies are more likely to try inventing new products. The increased attention to these issues provides a safer place for new products to be introduced to the market without fear that the time and resources put into the product will be wasted. For companies, having patents for 10 years increases the profitability lifespan before generic products are introduced. Given no alternative, consumers will have to buy the patented products, thus allowing the company to retain pricing power. While this patent protection may result in higher prices for consumers, companies will create new products at lower prices for markets that could not afford the original products.

4.2 Repercussions of the American Political Climate

All implications about USMCA remain uncertain until the governments of the three signatories ratify it. The biggest hurdle will be getting the approval of the U.S. Congress, which must review a finalized draft and its possible impact before a vote is taken. Progress towards ratification was halted by the biggest U.S. government shutdown in American history. It lasted for 35 days and forced consideration of the USMCA to be set aside as Congress grappled with a more pressing budget-related issue.

Once the consideration of USMCA begins anew, a yes/no ratification vote needs to occur “after 45 legislative days for consideration by the House Ways and Means Committee and 15 legislative days of debate in the House of Representatives; in the Senate, the Finance Committee as 45 legislative days...and then the Senate has 15 legislative days to debate” (Sands, 2019, p. 6). If the House and Senate consider the deal simultaneously, it could take up to 25 weeks before a vote is taken. However, if the House waits for the Senate, it could take more than 60 weeks, so no vote would be taken until 2020. Given the amount of time until the U.S. government reaches a decision, it is likely that the Mexican and Canadian governments will refrain from their own legislative processes until the U.S. has ratified the deal.

While not the focus of the USMCA, the logistics industry stands to see the most change if USMCA goes into effect. The changes enacted in the new rules of origin, the automotive industry labor provisions, and intellectual property provisions will require companies to expand their supply chain networks to fulfill the new requirements. These companies will also need to consider the implications of crossing borders and whether freight will still be required to be transferred to domestic carriers. Americans may regain jobs in sectors such as the automotive one, but these companies may experience higher production costs, which in all likelihood will translate into higher consumer prices.

References

Alster B. (30 January, 2018). “Eradicating human trafficking in today’s supply chains”, March 28, 2019, available online at: http://www.apics.org/sites/apics-blog/think-supply-chain-landing-page/thinking-supply-chain/2018/01/30/eradicating-human-trafficking-in-todays-supply-chains.

Amadeo K. (2019, March 01). “Fast facts about the world’s largest trade agreement”, March 28, 2019, available online at: https://www.thebalance.com/facts-about-nafta-statistics-and-accomplishments-3306280.

Amadeo K. (2019, January 23). “6 negative effects of NAFTA”, March 28, 2019, available online at: https://www.thebalance.com/disadvantages-of-nafta-3306273.

Bearth D. P. (2018, September 04). “US-Mexico trade deal draws cautious reaction”, January 29, 2019, available online at: https://www.ttnews.com/articles/us-mexico-trade-deal-draws-scrutiny-trucking-industry.

Ben-Achour S. (2017, March 22). “Did NAFTA cost or create jobs? Both”, March 28, 2019, available online at: https://www.marketplace.org/2017/03/21/economy/did-nafta-cost-or-create-jobs-both.

Bondarenko P. (15 January, 2019). “North American free trade agreement”, March 28, 2019, available online at: https://www.britannica.com/event/North-American-Free-Trade-Agreement.

Cobos R. (2012, May 22). “The maquila handbook: Quick Tips for understanding Mexico’s IMMEX program”, March 28, 2019, available online at: https://www.industryweek.com/global-economy/maquila-handbook-quick-tips-understanding-mexicos-immex-program.

From NAFTA to USMCA: Understanding Changes to Free Trade in North America (2018). January 29, 2019, available online at: https://www.livingstonintl.com/nafta.

Islam D., Meier J. F., Aditjandra P. T., Zunder T. H. and Pace G. (2012, November 27). *Logistics and Supply Chain Management*, Elsevier Ltd.

Jacobson L. (2018, October 02). “Has U.S. had $2 trillion in trade deficits since NAFTA?”, March 28, 2019, available online at: https://www.politifact.com/truth-o-meter/statements/2018/oct/01/donald-trump/has-us-racked-2-trillion-trade-deficits-nafta-bega.

Long H. (2018, October 01). “U.S., Canada and Mexico just reached a sweeping new NAFTA deal. Here’s what’s in it”, March 28, 2019, available online at: https://www.washingtonpost.com/business/2018/10/01/us-canada-mexico-just-reached-sweeping-new-nafta-deal-heres-whats-it/?utm_term=.a26a79d6118b.

Long H. (2018, October 01). “USMCA: Who are the winners and losers of the ‘new NAFTA’?”, January 29, 2019, available online at: https://www.washingtonpost.com/business/2018/10/01/winners-losers-usmca-trade-deal/?utm_term=.cb8b274021ff.

Mayne N. (2018, October 31). “Changes to NAFTA’s intellectual property provisions in the USMCA | IP law trends”, March 28, 2019, from https://www.iplawtrends.com/changes-to-naftas-intellectual-property-provisions-in-the-usmca.

Nerad J. R. (2019, January 19). “Auto execs say U.S. Mexico Canada trade pact will have positive effects”, March 28, 2019, available online at: https://www.forbes.com/sites/jacknerad2/2019/01/19/auto-execs-say-u-s-mexico-canada-trade-pact-will-have-positive-effects/#5e57ccd562b7.

Operations and Logistics (n.d.). January 28, 2019, available online at: http://www.vault.com/industries-professions/industries/operations-and-logistics.aspx.

Parsons C. (n.d.). “NAFTA and the environment in Mexico”, March 28, 2019, from https://library.brown.edu/create/modernlatinamerica/chapters/chapter-12-strategies-for-economic-developmen/nafta-free-trade-and-the-environment-in-mexico/.

Rice J. (1998, April 01). “PITEX and maquiladora import programs: A working guide and comparative evaluation”, March 28, 2019, available online at: https://www.questia.com/library/journal/1P3-29633942/pitex-and-maquiladora-import-programs-a-working-guide.

Rose M. H. and Seely, B. E. (1990). “Getting the interstate system built: Road engineers and the implementation of public policy, 1955-1985”, *Journal of Policy History*, Vol. 2, No. 1, pp. 23-55.

Sands C. (2019, February 01). “Unpacking the USMCA for congressional approval in 2019”, March 28, 2019, available online at: https://www.csis.org/analysis/unpacking-usmca-congressional-approval-2019.

Smallen D. (2017). “North American transborder freight data”, March 28, 2019, available online at: https://www.bts.gov/newsroom/2017-north-american-freight-numbers.

Smith R. (2018, December 10). “NAFTA has been successful; agreement expected soon”, March 28, 2019, available online at: https://www.farmprogress.com/farm-policy/nafta-has-been-successful-agreement-expected-soon.

The Importance of Transportation Management (21 January, 2019). March 28, 2019, available online at: https://www.plslogistics.com/blog/the-importance-of-transportation-management.

"United States–Mexico–Canada trade fact sheet: Modernizing NAFTA into a 21st century trade agreement" (October, 2018). January 29, 2019, available online at: https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2018/october/united-states–mexico–canada-trade-fa-1.