

Urban development and supply chain



Introduction

It is a common belief that urban areas have better resources, job markets, and businesses, leading people to move from rural to urban areas. When this move happens, state government start putting in more money and resources into the cities in an effort to further urbanize the city as well as to keep up with the increasing population. Boudoin, Morel, and Gardat, the authors of article, “ *Supply Chains and Urban Logistics Platforms. Concepts, Methods, and Information Systems* ” defines urbanization as, “ movement of people in the city” (2). Therefore, urbanization can be considered as a major shift in population from rural areas to urban places at a rapid pace. In other words, it involves a gradual increase in the percentage of people moving to and living in urban areas and how the community adapts to such changes. On the other hand, Winkenbach the author of “ *Remapping the Last Mile of the Urban Supply Chain* ” defines supply chain as, “ system of organizations or activities” (8). Supply chain is the network of every individual resources, and organization involved from the beginning of the process i. e. creating the product till the end of it when it reaches the final consumer. The significance of the supply chain is continuously evolving in various branches. One of the biggest and the most important supply chain function is the logistics of the product, which is directly affected by changes and growth in places with big consumer bases. In many countries, logistics aims to optimize production as well as distribution processes (Winkenbach 8). Therefore, in the whole process of the supply chain, transportation is regarded as essential in the business from the production process to delivery of the goods to end-users. The article “ *Why all businesses should embrace sustainability* ” written by

Knut states that, “ large number of Americans are flocking in urban areas and this is likely to increase with time” (8). Conversely, for almost 100 years, the level of urban population growth is regarded to have overtook the suburb growth. This growth has led to many large firms and corporations opening offices or moving into metropolitan cities to employ competitively and also to get a better consumer base for their businesses. As a result, this rapid urbanization and business development are influencing how consumers or customers shop, the kind of product they prefer, and the best way to deliver goods. For that reason, this research paper will analyze the impact of urbanization supply chain and finally make conclusion.

Urban development

Urbanization over the past years has led to urban development as now cities and other urban areas require new and much greater amount of resources to keep up with the increasing population and their demands. Just like anything else, there is both negatives and positives to these changes as well. While it may mean a better lifestyle, and better resources, it also means that consumers end up paying more for the same products or services, and big corporations taking over smaller local businesses. Winkenbach in his article explains that, “ Urban development is one major issue in many countries” (10). Today, almost 4 billion people around the world live in the cities. This trend is anticipated to grow within due time because of the lack of availability of resources in most towns (Winkenbach 10). Furthermore, it is expected that by 2050, because of the urban development, more than seven out of ten people will be living in the cities (Knut 7). This means businesses will now mostly be focused on cities, leaving other developing regions which in turn leads to the increase in cost of living in urban areas and increase in

difficulty to conduct daily operations and logistics of a business. Practicing sustainability becomes difficult with increasing population but also better practices become crucial with this growth. A website called “ The World Bank” talks about how although “ this high speed as well as the scale of urbanization has been causing many problems including meeting the high demand for affordable houses, well-improved transport, and infrastructure, with more than 80 percent of the global gross domestic product being generated in the cities, urbanization can easily contribute to sustainable growth” (1).

Urban development and its ties to Supply Chain

Supply Chain leans heavily into urban development as the processes and methods need to be updated with changing environments, demands and economies. Boudoin, Morel, and Gardat, say in their article that “ Development of urban areas in most cases is interlinked to improved supply of goods. In other words, the existence of better transportation, productive food supply, and movement of people are some of the critical factors that can contribute towards the development of urban cities” (9). Furthermore, Knut in his article states that, “ it is through development that transportation and movement of goods can be improved” (20). Hence, transportation is among the key players to ensure that the resources are catered well according to the demands of the population. Due to this, development of the urban freights delivery growth is mostly expected to increase by 40% and as result leaders are required to work together toward improving cities logistics, infrastructure and the best way to improve congestion. An article by Lopez and McKevitt called “ *Supply chains must collaborate with cities to improve logistics* ” state that, “ supply chain can be organized in the best way in

urban areas that are organized” (4). Urbanization causes a high level of congestion in the city and this causes delays in delivering goods to customers on time; for which companies are coming up with innovative solutions to ensure utmost customer satisfaction. Despite these new innovative solutions, the issues still exist as it is not easy to perfectly implement these plans as it tends to be a trial and error before finding the best-fit solution; as a result, there are negative effects in the supply chain cycle. For that reason, the authors say in order to curb high congestion due to urbanization for effective supply chain, it is critical to establish off-hour delivery time and active distribution. Boudoin quotes that, “ this will enhance on delivery of goods and services in the market” (10).

Its effects on Logistics, Lead Times, Costs and Operations

Logistics is one of the most important functions of supply chain, it ensures that a product reaches the consumer at the right time, in the right place, in good condition. Urbanization and development have both positive and negative influences on daily logistics. For instance, due to the high number of people in the country, the delivery of goods has been difficult due to congestion in most cities making it hard for vehicles to move easily. For that reason, most consumers or suppliers adopt different technologies that offer Omni channel touch point to improve logistics activities in cities (Winkenbach). In this way, an improved delivery of goods makes it easier for goods and services to be delivered anytime, anywhere in the country Lopez and McKevitt say in their article that “ For one, recent reports and historical experience show logistics congestion can stifle any industry’s growth. A recent report by the American Chemistry Council found the industry projects over \$40 billion in costs from side effects of congestion, which include excess

inventory from transportation delays as well as capital expenditures to renew equipment or infrastructure” (1). But the technological advances can help find optimization techniques; Lopez and McKevitt go on to say that “Technology is becoming proactive and connectivity influencing each stage of the supply chain activities,” (4). Logistics will be required to become agile to offer more spontaneous terms of delivery of goods and service to customers. Technologies such as location-based tracking are likely to assist companies in optimizing trips to make sure every business is operative in the city (Winkenbach). The effects for urban development on logistics do not stop at delivery times. It also increases the amount spent delivery costs because companies are starting to use the personalized delivery method to ensure they meet their lead times. Personalized delivery is too expensive for an individual or company to do one-on-one deliveries to the customers due to high congestion (Winkenbach). Besides, the supply chain is constantly required to become leaner and more agile to ensure consumers receive all of the goods they purchase from the company.

Urban development definitely has its effects on day to day operations and logistics, especially for products or goods that move constantly require time-sensitive delivery times. One good example of it is food supply chain, as perishable food items do not have long shelf-lives and need to get to their selling point as soon as possible and population movement is regarded to have put more pressure on food supplies and their distribution (Lopez and McKevitt). The increasing difficulty of being able to get fresh produce without having to pay an arm and a leg has caused people to steer away from perishable food items to non-perishable foods as they have longer shelf lives

and cost significantly less. The issue concerning high prices also comes from having to spend large sums of money in order to get fast deliveries as most crops are grown in rural or suburban areas and a lot has to be spent on their logistics. Authors Lopez and Mckevitt say that as the population grows with time, there is a high demand for land and water as well; this makes it challenging to increase the level of food production in a better way as there is lack of space for crops to grow in or near cities. This has been one of the reasons why farmers from rural areas are forced to produce in more significant number, to keep up growing demands.

The supply of food is also affected by lack of fruitful crops across the country. Brown and Gomez, the authors of “ *The Impact of Urban Distribution Operations of Upstream Supply Chain Constraints* ” elaborate that, “ high number of people in the city can result in pollution which can easily disrupt the level of the food supply in the countries” (890). They go on to say how for instance fisheries are mostly damaged by urban domestic waste as well as the liquid waste from the city-based industries. Issues like these increase the lead times for deliveries, as well as make it harder to move anything due to lack of production. Other than that, as mentioned before, significant increase in urbanization has resulted in congestion, which makes logistics far less predictable and harder to manage. Without executing innovative solutions which can be supported by technology, congestion not only makes performing logistics harder, but also increases emission of gases that causes pollution.

Movement of goods is not only necessary for the businesses but also for the residents in cities and lack of it takes away from their resources. Besides, it also acts as an essential source of economic growth within the cities. Most

people living in cities look for convenience, they want their wants and needs to be readily available for them at their doorstep, which is another reason why customer deliveries have become such an essential part of businesses. At the same time, like authors Brown and Gomez say, transportation together with delivery can easily contribute to the pollution and congestion, and this can pose a significant challenge for a business to handle or manage issues of sustainability. One of the better business models that can combat this is e-commerce; as they are able to cut down on several layers of logistics by being able to ship from manufacturer to customer and it also helps them save holding and inventory costs. Regardless of the type of business, meeting customers' expectations is one of the major problems since it is not easier to transport critical products to the market on time.

Authors Lopez and McKevitt try to convey through their article that urbanization can also drive more spending, particularly in logistics. This is because shippers will be required to obtain an effective means of delivering products to their customers. The delivery of goods is expected to be quicker and on time, and this cannot occur when there is a high level of congestion in the country because of urbanization. To attempt and try to overcome this, supply chain will be required to become a learner and understand critical tactics in the market to keep up with the customers and their many connected devices that can make it easier for them to order products at a given point or anywhere. They also put forth how because many millennials have a strong preference for living in the city, and have a different attitude about owning cars, businesses find it difficult to market their products to them.

Urbanization is a hindrance to the number of goods delivered in the market. The high increase in congestion is because of the supply chain last-mile infrastructure. In this way, it means that there will be a small package and also less truckload delivery within the market found in urban areas (Lopez and McKevitt 2). Brown and Gomez make a suggestion by explaining how one simple way to improve this issue would be if the department of transportation could share traffic and other road related updated with trucking firms, they can work on bettering their routes and plans in order to diminish transport times so that goods can be delivered on time and appropriate place. Accordingly, delivery hours can easily be organized with trucking firms, warehouses as well as other local businesses to receive shipment outside of the rush hours.

Effects on Local Businesses

Local business are affected in several ways. Urban development helps them reach a wider market range and a gain a bigger customer base. But at the same time, the negative effects include big corporations and franchises moving into the cities as a part of this development, and bigger companies tend to have better business knowledge and the money and resources to understand their market better in order to cater according to their customers' demands. This usually kills small and locally owned businesses because big corporations take over the market with competitive prices and deals and have the means to spend more on marketing. Other than those negative effects, local business can also easily benefit from urbanization since they can take advantage of the infrastructure and transport to take business to different markets (Winkenbach). As the city population expands and grows, the government embarks on big projects from building highways

to creating better public transit. The new infrastructure makes the population mobile so as the new business can easily position themselves along the newly established transit routes and expect to gain access to a significant customer base as more individuals are able to travel to those areas.

Despite the new developments, businesses can also face challenges in regards to their logistics. Whether it be the business receiving their goods that are to be sold or the final customer waiting on their product delivery. Businesses are not able to deliver goods to their customers on time because of delay in traffic or congestion in roads. They end up spending more time transporting their goods from one city to another or from customer to customer, which reduces their ability to focus on bettering their business practices.

Sustainability

One key issue with urbanization and urban development has been sustainability. Although it has been getting harder to implement sustainable practices, companies and individuals are starting to realize how important it is to make sure they as well as their future generations have a healthier and safer environment. Jardas et al elaborates that, “ Sustainability is a critical issue for all companies across the world” (12). They go on to say that, almost 65 % of top management considers sustainability to be essential to compete effectively in the business. Therefore, sustainability is defined as a business approach to establish long term value by considering how the organization operates in the economic and social environment. Hence, such an approach improves on long terms productivity of the organization.

It is for this reason that big corporations moving into the cities should employ sustainable practices to set an example for other smaller companies as well as residents. Why it gets hard is because big companies moving into urban areas increase the level of productivity and also reduces the cost spend on goods and services by the customers, and this model works because of the amount of cost-cutting that takes place. This leaves no room sustainable practices because it costs businesses more money, that they end up charging customers, which might or might not be affordable for many.

But over the past few years, Sustainable business practices have been gaining rhythm, and demand as more and more consumers are starting to learn about previous bad practices and now only want to associate themselves to sustainable companies. This demand lead to rapid profit increases for the business. As a result, the development of sustainable business practices causes efficient operation and streamlines effort. Thus, goes on to conserve resources, improve economic productivity and minimize on costs. Ruesch et al, the authors of article “ *Sustainable Goods Supply and Transport in Conurbations: Freight Strategies and Guidelines*” state that Cost reduction also involves energy conservation approach which can help a business reduce on any cost they are likely to spend on transportation of goods and services to the market. Besides, such efforts have a more significant global impact as they are more sustainable and most likely will have long term outcomes that justify the investment.

When big companies move to urban areas, they can put forth efforts to increase sustainability in different dimensions. For instance, the business could lead a collaboration across the various supply chain to help in reducing

waste and increase resource productivity as well as optimize the material usage. In this way, waste resources can be easily be monitored and controlled for long term sustainability. Bigger companies can also take significant steps in addressing local labor and living wages situation as they are the ones that require more labor. Not only this, they could also address the labor issue at the supplier's end which can also help them gain a better control over the market.

There have been companies that have used their market presence to improve and better their sustainable practices and also send the message across for populations. For instance, prominent car manufacturer like Toyota has over the years improved energy efficiency and reduced their pollution. In this way, large companies could make a strong commitment to sustainability. Corporations can also lead by example by being as transparent as possible with their business practices, so they can attract more customers and also make an impact on the environment.

Ruesch et al explains how high number of companies in the city can increase the levels of pollution especially because waste control and energy consumption becomes very hard to control as cities are already congested with large numbers of people moving there in search for employment.

Therefore, all this is likely to cause air pollution due to the emission of gases such as carbon dioxide hence provides poor quality of life as a result of increasing population, corporations and concentration of vehicles that emit toxic substances. Many congested cities are on their way to switching to electric cars as a mean of transportation, and big companies use them as well as to distribute products from one to another urban area from dislocated

warehouses. Although, sustainability is not being practiced by everyone, it is on its way to becoming more of a lifestyle choice and less of a trend.

Conclusion

Urban development has been a boon to some and a curse to others, it has caused job markets to improve as the cycle of people moving into cities in search for better resources and jobs and companies moving into the cities in search of a more talented and diverse pool of candidates has been working. This has led to economical increases but has at the same time made it harder for smaller companies to survive, for corporations to have smooth business operations, and for sustainability. In conclusion, it is essential that the issues that arise from urbanization and development are solved to improve supply chain and other business operations. In other words, investment in infrastructure is a critical way to meet the significant logistical as well as environmental demands most cities are experiencing, as urbanization has been a cause for hindering movement of goods and inefficient logistics. Other than that, urbanization can also be beneficial to corporations and supply chain in a way that it can create a bigger consumer base and improve net profit margins for their companies. Although sustainability has been an issue for years now, companies and people have started to address this issue on a serious note and make adjustments to their lifestyle in order to protect the environment. Furthermore, it is important if urbanization is controlled by ensuring high level of equality in both cities and rural areas. In this way, issues such as transportation, congestion, pollution, lack of resources can be minimized in the best way possible and as required.

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