

International Marketing Practices for Small to Medium Sized Forest Products Firms



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Preface

There has been never a better opportunity for small to medium sized forest products firms to expand into international markets. Social media and improved distribution methods now allow smaller companies to compete directly with larger firms in the global marketplace. Improving standards of living in Asia, Eastern Europe, and Latin America have increased disposable income, which can improve demand for U.S. forest products. Whether you are a manufacturer of primary wood products and want to expand your markets, or if you manufacture specialty secondary handcrafted wood products, markets for your products are growing around the world. The purpose of this guide is to provide small and medium sized forest products businesses with easy-to-use information on how to systematically evaluate factors critical to a successful overseas operation and outline an applicable marketing strategy to enter international markets.

Robert Smith

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Chapter 1: Get Started in International Marketing

The importance of global trade cannot be overstated. International trade fosters peace by incentivizing collaboration between countries to develop, manufacture, and deliver goods and services [1]. Trade promotes production where efficiencies are highest, often making products more affordable and raising the standard of living for the parties involved [2]. Global trade has helped elevate hundreds of millions of people out of extreme poverty [3]. Trade bolsters the United States economy by providing U.S. companies access to large and fast-growing markets, supporting well-paying jobs, expanding the variety of products available for purchase by consumers and businesses, and boosting economic growth overall. In fact, exports support 6 million U.S. manufacturing jobs, many of which are at small to medium sized firms [4]. Of the more than 300,000 U.S. companies that export products, 98% are small to medium sized businesses, and they represent one-third of trade by value [5].

The forest products sector has been dramatically changed by globalization trends. As Chapter 2 will show, the international trade of forest products has expanded rapidly in the last four decades. In fact, in the 1980-2017 period, global exports of forest products have more than tripled [6]. The United States, the largest producer and consumer of forest products [7], increased its exports of forest products by 260% during the same period [8]. In 2017, the forest products industry contributed \$34.4 billion to the U.S. export base — \$9.8 billion of solid and engineered wood products and \$24.6 billion of pulp and paper products [9]. Exports are increasingly important for American forest products firms. In 2015, for example, more than one-third of all appearance-based hardwood lumber went to overseas markets [10]. Foreign direct investment has also grown exponentially in the forest products industry, with companies investing in distribution infrastructure, manufacturing facilities, and even forestland. For example, Canadian companies acquired 4.4 billion board feet in sawmill capacity in the Southern U.S. in the 2000-2017 period [11]; Arauco, a Chilean company, invested in composite panel manufacturing facilities in Arkansas, Oregon, North Carolina, South Carolina, and Michigan [12]; and Weyerhaeuser invested substantially in timberland and manufacturing facilities in Brazil and Uruguay, although it recently divested of all of its forestland holdings outside North America [13].

Reasons for Entering Foreign Markets

There are many reasons why a U.S. business may be interested in starting international operations. Overseas, destinations present an opportunity for larger, fast-growing markets. In fact, 95% of the world's consumers live outside the United States, and markets outside the U.S. represent 92% of global economic growth [14]. The world has experienced rapid expansion of the middle class in the last decade,

which is now estimated at 3.2 billion people and projected to grow by 160 million each year, with most of the new entrants located in Asia [15]. A firm may want to take advantage of easy access to some markets or free trade agreements (FTAs). The U.S. has signed FTAs with 20 countries [2]. International markets help businesses diversify their markets, allow them to smooth out domestic economic downturns, and can be an attractive outlet for a firm's excess capacity. Entering international markets may provide information and access to talent that will help a business develop a competitive advantage in the long term. Lastly, international markets present opportunities for small businesses to identify and develop profitable niche markets, where firms often face less competition than in a crowded domestic market.

There are reasons why some companies avoid international operations, including increased paperwork, language and cultural barriers, slower and more complicated payment methods, tariff and non-tariff trade barriers, market access and logistical challenges, lack of personnel with training in international commerce, risky political and economic climates, and lack of competitive products. These challenges contribute to a perception of higher risk and uncertainty in entering international markets. In addition, many small to medium sized forest products firms do not start with adequate training in marketing, much less international marketing. Sometimes the day-to-day pressures of running the business may not leave enough time to do market research, learn about legal requirements in a target market, or develop international marketing plans. However, careful research and planning can help to decrease risk and boost a firm's chances of success. Appendix A contains a comprehensive list of resources compiled to assist firms entering foreign markets.

International Marketing Defined

Marketing is often considered the "income generating" function of a business. One author states that marketing is 20% of the business planning process that produces 80% of the results [16]. According to the American Marketing Association, marketing is the process by which value is *created, communicated, and delivered* to customers [17]. Marketing links production with customers, integrates a firm's several functions, and helps create and maintain relationships with customers and other stakeholders [18].

International marketing can be defined as "*the performance of business activities designed to plan, price, promote, and direct the flow of a company's goods and services to customers or users in more than one nation for a profit*" [19]. Therefore, to sell a product effectively overseas, it is essential to appeal to consumer needs and desires in that specific market. Careful planning of international marketing strategies can help to address the uncertainty associated with exports by gauging a company's readiness to enter a market [20].

In essence, international marketing is not too different from domestic marketing. Both rely on market research and situational analysis to develop a market segmentation strategy, identify target market segments, develop a positioning strategy, and decide on actions to execute these strategies. The four P's of marketing strategy (product, placement, promotion, and pricing) are critical to developing a sound and well thought-out marketing plan for both domestic and international markets as well.

Differences between domestic and international marketing arise largely from additional factors to consider in complex overseas markets, which adds to the risk and uncertainty of starting an international operation. Foreign environments may include unfamiliar and sometimes unfavorable political, legal, economic, and competitive factors. The nature of international distribution channels and a company's access to them may also present added hurdles compared with domestic distribution. The level of sophistication of overseas consumers and the nature of the labor force in the foreign market may present other challenges. Lastly, cultural differences are overlooked by many firms and have caused the failure of many companies' international ventures. Because of their importance, a section later in this chapter is dedicated to cultural factors.

Stages of an International Marketing Operation

The evolution of an international marketing operation can be seen in stages. First, a company may experiment with international sales by exporting its surplus product to foreign customers directly or through intermediaries. At this stage, companies do not take steps to actively cultivate a foreign customer base, and risk for the company is the lowest. Next, the company begins to actively pursue foreign markets, make conscious efforts to conform to foreign consumer preferences, and dedicate permanent production capacity and resources to foreign markets. However, the domestic market remains the primary focus of a firm in this stage. One step further, the company decides to fully immerse in a foreign market and develops tailored product options and marketing strategies. At this stage, the company may decide to engage in foreign direct investment and build production and distribution capacity in the foreign market or engage in a joint venture to build those capacities. In the last stage, which typically generates the most revenue in foreign markets, the company decides to become a truly global operation and treat the world as one market. Markets segments at this stage span different regions and countries [1].

Entering Foreign Markets

The purpose of this guide is to help small to medium sized forest products firms successfully enter a foreign market, which is largely dependent upon the strategy and approach taken, including how, when, where, and on what scale [21]. This

section outlines major considerations for firms with exporting aspirations. For additional resources on organizations assisting exporters, see Appendix B.

Firms must strategically consider the long-term profit potential when determining the ideal foreign market in which to operate. Similar to domestic marketing, a company needs to conduct careful research of foreign markets to find unfulfilled needs to capitalize on through market entry. It may prove effective to enter a market that has little-to-no domestic competition [21]. For example, a company based in the U.S. Pacific Northwest exports structural wood components to South America. These large, cross-section elements have been reclaimed from old and decommissioned timber frame buildings and will be used for high-end homes, which owners value for both their structural integrity and historical significance.

The timing chosen to enter a foreign market is also important, particularly when considering whether to enter before or after the competition, as there are advantages to both. Entering a market before the competition and reaping first-mover advantages can help to maintain control and effectively influence pricing. However, if a company were to enter a market later, they could observe other firms and learn from their mistakes and successes [21].

Scale of entry is critical when considering entry strategy, especially for a small to medium sized forest products producer. Large-scale market entry requires sizable resources, such as acquiring or investing in an overseas company. For small companies, these resources are not usually available. Thus, a staged, small-scale entry would likely need to be implemented while gaining further knowledge on the workings of the overseas market.

Decision on mode of entry into a foreign market is essential at the early stages of planning an international operation. Forms of entry include, but are not limited to, exporting, turnkey projects, licensing, franchising, establishing joint ventures, or setting up a wholly owned subsidiary [21]. For the purpose of this guide, exporting is assumed to be the form of entry, as it is the most common method for U.S. small to medium sized forest products companies. Exports account for about 10% of the total global economic activity [19]. Exporting activity can be *direct* or *indirect*, and a company should consider which option will serve its needs most effectively. In direct exporting, commerce occurs directly with a customer overseas, and the manufacturer is responsible for handling, shipping, and collecting payment. A direct exporting approach requires more resources and commitment; however, it allows for more control on the operation, a closer relationship with the customers, and potentially higher profits because there is no middle person. Companies that engage in indirect exporting sell through a middle person, also known as a trade intermediary [19]. This strategy has lower risk and requires less involvement because many forest products companies, big and small, sell overseas through intermediaries.

One way to think about the entry mode to a foreign market is the framework proposed by Punnett [22], which depends on three factors: the perceived level of attractiveness of the foreign market, the firm's ability to engage in international operations (capacity), and the perceived risk of the foreign market in consideration. If conditions are promising — meaning the attractiveness of the foreign market is high, the risk is perceived as low, and the firm's ability to enter that market is high — then maximum firm involvement is favored, which may translate in direct foreign investment in distribution infrastructure, personnel, and marketing efforts. On the opposite end, when the conditions are unfavorable — with low perceived market attractiveness, high risk, and the firm's low capacity to serve that market — the company may want to minimize risk and use intermediaries instead.

Cultural and Political Differences and Their Importance for International Trade

Varying cultural, legal, political, and geographic environments stand among the international marketer's primary concerns, often associated with high uncertainty surrounding consumer receptivity to marketing actions [19]. Cultures differ vastly between regions, countries, and cities and can change over time. It is vital to consider cultural differences when investing in international trade, as culture directly impacts the political climate and, in turn, the economy and trade. This section of the guide delves into how to address cultural differences in foreign countries.

A business that plans to enter foreign markets needs to make a conscious effort to understand cultural differences, specifically those that influence consumer behaviors and how business is done, effectively gaining *cultural intelligence* or *cross-cultural literacy* [20, 21]. Cultural intelligence can be defined as “*a multifaceted competency consisting of cultural knowledge, the practice of mindfulness, and the repertoire of behavioral skills*” [20]. The need to cultivate awareness of cultural differences is often overshadowed by logistics, financing, and other such business requirements; however, overlooking the importance of gaining cultural intelligence is often detrimental to companies entering a foreign market. Examples of firms that failed in their efforts to enter foreign markets are plentiful in business literature, typically associated with marketing campaigns that failed to consider cultural differences and, as a result, were not well received by the foreign consumer base [20].

Especially as economies and business ventures become more dependent on foreign trade, it is vital to embrace foreign business customs. Elements of business culture that can vary between countries include relationships, language, body language, religion, values and attitudes, laws and legal environment, education, technology, and social organization [23]. The most effective way to address these stark cultural differences is to “do your homework,” delving further into specific cultural practices

before interacting with individuals of that culture [20]. In addition, a foreign manager, marketer, or business member can learn to be self-aware, work with differences, communicate more effectively, and be curious about differing cultural practices [20].

Verbal and nonverbal communications are shaped by culture and, in turn, shape the cultural acceptance and integration of a given company. Different words, phrases, and gestures can be interpreted differently worldwide. For example, the Chevrolet Nova represents how language can shape the cultural acceptance of a product. This car did not sell well in Spanish-speaking countries because the model name literally translated to “does not go” [21]. In addition, people prefer to do business in their own language, and many truly effective international marketers are multilingual. Nonverbal communication consists of body language and gestures, usually associated with personal boundaries and varying hand symbols. Lacking knowledge of verbal and nonverbal communication norms might lead to miscommunication and even offense [21]. A few examples of cultural factors that firms conducting business in international markets must consider are listed below [24, 25].

- **Punctuality.** Timeliness is more valued in North America and Europe than in Latin America.
- **Space orientation.** Personal space is larger for North Europeans and North Americans than for South Europeans and Latin Americans.
- **Eye contact.** In North America, direct eye contact is seen as indication of reliability, whereas in some Asian cultures, it can be considered disrespectful.
- **Power distance.** The acceptance of unequal power between different people is often described as power distance. People from some Latin American countries are more comfortable with hierarchical structures and authority figures than Scandinavians, for example.
- **Tolerance for uncertainty.** People from different cultures often handle ambiguity differently, which is often understood as tolerance for uncertainty. People from Arab and African countries, for example, show more discomfort with uncertainty than Americans or Singaporeans.

It is especially important to note that cultural skills can be learned, which could prove helpful to both international marketing and navigating overseas business relationships. These skills include communication of respect and sincere interest in the culture, a culture’s tolerance for ambiguity, understanding of fundamental differences and frustration, empathy, and recognition that culture dictates the way people make decisions and act [19]. Appendix C lists business etiquette differences for some countries and cultures.

Political climate can also greatly influence business relationships and behavior. Various government structures operating across the globe approach international

trade differently, and they can promote, impede, compete with, or replace international import and export [20]. Governments can set up barriers to trade to limit what can be imported to or exported from a given country [20]. Governments can also have a strong influence on how business transactions are conducted, including selection of investment, control of takeovers, how mergers and acquisitions are achieved; regulation of ownership, managerial control, and employment; and taxation and regulation of financial transactions [20]. Finally, governments strictly control things like license requirements for international trade, tariffs, and quotas.

Standing government policies are directly affected by politics. Businesses rely on political stability for effective long-term planning, and political fluctuation brings rise to trade concerns [19]. To combat the threat of changing political climates, firms can assess their political vulnerability by gauging sensitive products and issues, as well as forecasting political risk. Assessing political vulnerability, which can be defined as the attempt to forecast instability within foreign politics, is used to assess company risk and adaptability [19]. Politically sensitive products are those that are ill-received by the population, usually surrounding health or image. Political risk can be combatted through the integration of joint venture, expanded investment base, licensing and franchising, planned domestication, and political bargaining into company policy [19].

Finally, in some foreign markets, there is potential for corruption, which can happen at different administrative levels. Moreover, forms of corruption can be seen as the “usual” way of conducting business in some countries, especially with as strenuous and lengthy a process as the international trade of forest products, which presents many opportunities for bribery. Transparency International publishes the Corruption Perceptions Index, a measure of public sector corruption for 180 countries as perceived by businesspeople [26]. Businesses should be aware of the Foreign Corrupt Practices Act (FCPA), which contains anti-bribery provisions that make it unlawful for U.S. individuals or businesses to “...*make payments to foreign government officials to assist in obtaining or retaining business*” [27]. The FCPA also prohibits paying bribes directly or through intermediaries. Specific to forest products, actions such as the Lacey Act and the Forest Law Enforcement, Governance, and Trade (FLEGT) Action Plan attempt to address some of the effects of political corruption. These regulatory frameworks are discussed in detail in Chapter 2.

Chapter Questions

1. Why are you considering international marketing?
2. Are you committed to entering international markets?
3. Do you have a specific region you want to enter?

Chapter 2: International Trade of Forest Products

To understand a business's role in an international market, it is helpful to be aware of market trends and issues affecting trade. The first part of this chapter provides an overview of the global trade of forest products. Trade data listed in this chapter comes from several sources, including the Food and Agriculture Organization's Food and Agriculture Data Service (FAOSTAT) [28], the USDA Foreign Agricultural Service's Global Agricultural Trade System (GATS) [8], the Forest Products Annual Market Review published by the United Nations Economic Commission for Europe (UNECE) and FAO [29], and other sources. The data provided in this guide depicts prominent trends over a 10-year period using the latest available data at the time the guide was written (spring 2019). Products analyzed include roundwood (softwood and hardwood), lumber (softwood and hardwood), wood-based panels, and value-added products (Figure 1).



Figure 1. Examples of forest products exported by the U.S. Photo credits: Sheryl Watson/Shutterstock.com, Robert Smith, Omar Espinoza.

The second part of this chapter reports on issues relevant to environmental sustainability and the international trade of forest products. Topics include measures taken to curb illegal logging, such as the U.S. Lacey Act and the European Union's Forest Law Enforcement, Governance, and Trade (FLEGT) Action Plan; forest certification and chain-of-custody certification; and actions to mitigate the spread of invasive pests, like the International Standards for Phytosanitary Measures.

Global Trade Flows of Forest Products

In 2017, global trade of forest products totaled \$247 billion¹; 8% and 70% higher than in 2016 and 2000, respectively [6]. The U.S. is an important participant in forest products manufacturing and trade, as this section of the chapter will show. In fact, although the U.S. accounts for only 7.5% of total global forest area, it produces close to one-fifth of all industrial roundwood [30], and Americans use five times more timber per capita than the global average [31].

Roundwood

In 2017, international trade of industrial roundwood totaled 130 million m³, a 2.5% increase from 2016. The U.S. was the largest producer of industrial roundwood, with over 360 million m³, followed by Russia, with 191 million m³ [30]. Russia and New Zealand were the top exporters of roundwood (15% of all exports each), followed by the U.S. with 10% [30]. Global trade of roundwood is a relatively small percentage of production (about 7%); therefore, the top producers are also the largest consumers. The top five importers and exporters of softwood and hardwood industrial roundwood changed somewhat from 2007 to 2017 (Table 1).

Table 1. Top five industrial roundwood importing and exporting countries, 2007 and 2017 [32]. All quantities in thousand m³.

Softwood Roundwood					
Imports			Exports		
2007 (111,912)		2017 (126,879)	2007 (82,640)		2017 (87,642)
China	23,472	China	38,417	Russia	35,100
Rep. of Korea	8,141	Germany	8,151	New Zealand	18,806
Japan	7,748	Austria	7,526	United States	7,624
Austria	7,325	Sweden	5,567	Russia	11,895
Finland	6,187	Canada	4,935	Germany	6,117
				United States	10,808
				New Zealand	5,978
				Canada	7,408
				Sweden	3,794
				Czech Rep.	6,380

Hardwood Roundwood					
Imports			Exports		
2007 (64,777)		2017 (60,623)	2007 (50,864)		2017 (42,722)
Finland	6,755	China	9,440	Russia	14,000
China	6,027	Finland	3,698	Russia	7,528
Sweden	3,791	Sweden	2,127	United States	2,324
Italy	2,197	Portugal	1,753	United States	2,671
Spain	1,983	Belgium	1,591	Latvia	1,977
				France	2,188
				Uruguay	1,868
				Latvia	1,697
				France	1,805
				Germany	1,319

¹ Forest products include roundwood, wood pellets, lumber, wood-based panels, wood pulp, recovered paper, and paper and paperboard.

In 2017, China far surpassed other countries as the largest importer of both softwood and hardwood roundwood. The United States was not among the top five importers of either softwood or hardwood roundwood in the period of analysis; however, it was a major exporter of roundwood, along with Russia (Table 1). Global trade of softwood roundwood increased steadily from 2007 to 2017. Some shifts can be observed in softwood roundwood trade over the 10-year analysis period, such as export growth in New Zealand and the Czech Republic and import success in Germany, Sweden, and Canada. For hardwood roundwood imports, Italy and Spain were displaced by Portugal and Belgium; Germany moved to be a top hardwood roundwood exporter, while Uruguay dropped from the list.

In 2017 (last year of available data), the United States exported 11.2 million m³ of softwood and hardwood logs, 9.0 million m³ of which were in softwood species [8]. The top buyers of U.S. roundwood were China, Japan, Canada, South Korea, and Vietnam. The U.S. imported 0.9 million m³ of roundwood in 2017, and imports came primarily from Canada, China, Guyana, and Australia (Table 2).

Table 2. Top five U.S. industrial roundwood trade partners, 2007-2017 [8]. All quantities in thousand m³.

Softwood Roundwood					
Imports				Exports	
2007 (1,725)		2017 (407)		2007 (7,022)	2017 (9,022)
Canada	1,719	Canada	402	Canada	2,682
China	1.9	China	3	China	4,843
Cameroon	1.0	France	0.8	Japan	1,754
Mexico	0.8	Germany	0.5	Korea	1,200
Ghana	0.5	Indonesia	0.4	Canada	1,689
				China	256
				Korea	435
				Mexico	110
				Vietnam	82

Hardwood Roundwood					
Imports				Exports	
2007 (73)		2017 (492)		2007 (2,016)	2017 (2,213)
Canada	59	Canada	465.0	Canada	723
China	2.9	Guyana	12.2	China	1,207
Mexico	2.2	China	3.9	Canada	419
Nigeria	1.7	Australia	2.2	Italy	702
Brazil	1.6	Switzerland	1.7	Vietnam	137
				Italy	84
				Germany	75
				Japan	48
					34

Softwood Lumber

Global exports of softwood lumber in 2017 amounted to 128 million m³, 15% higher than in 2007 (Table 3). Canada, Russia, Sweden, and Germany were among the top five exporters of softwood lumber in 2007 and 2017; however, Finland moved ahead of Germany in 2017. One-third of softwood lumber production is exported; thus, major producers do not necessarily match with top exporters. For example, the United States was the major producer of softwood lumber, accounting for 15%

of global production but exporting only 5% of its output, while Russia produces 10% of all softwood lumber and exports almost three-quarters of its output [32]. Major importers of softwood lumber in 2017 were the U.S. and China, with the U.K., Japan, and Germany standing as distant followers (Table 3). China, which was not even among the top five importers of softwood lumber in 2007, was a close second to the U.S. in 2017.

Table 3. Top five softwood lumber importing and exporting countries 2007 and 2017 [32]. All quantities in thousand m³.

Imports				Exports			
2007 (114,262)		2017 (149,114)		2007 (110,951)		2017 (127,528)	
United States	30,941	United States	26,695	Canada	32,385	Canada	31,076
U.K.	7,946	China	26,148	Russia	16,766	Russia	27,971
Japan	6,947	U.K.	7,079	Sweden	11,332	Sweden	13,111
Italy	6,438	Japan	6,124	Germany	8,432	Finland	9,358
Germany	6,137	Germany	4,738	Austria	7,637	Germany	7,519

In 2017, the United States exported 3.4 million m³ of softwood lumber, up 75% from 2007 and 4% from 2016 (Table 4) [8]. Major buyers of American softwood lumber were Canada, Mexico, China, and Japan. Southern yellow pine, Douglas-fir, and ponderosa pine made up 60% of all U.S. softwood lumber exports in 2017 [8]. Regarding imports, in 2017, the U.S. bought 17% less softwood lumber compared with 10 years prior. Canada was, by a very large margin, the largest source of U.S. softwood lumber imports (93%) in 2017, of which spruce-pine-fir represented over 80%, followed by western red cedar and Douglas-fir [8].

Table 4. Top five U.S. softwood lumber trade partners, 2007-2017 in thousand m³ [8].

Imports				Exports			
2007 (42,956*)		2017 (35,793*)		2007 (1,918)		2017 (3,352)	
Canada	39,110	Canada	33,412	Canada	580	Canada	718
Germany	1,445	Germany	635	Mexico	333	Mexico	700
Chile	817	Sweden	377	Japan	154	China	657
Brazil	456	Brazil	373	Dominican R.	129	Dominican R.	234
New Zealand	278	Chile	334	U.K.	89	Japan	221

*Difference with total U.S. imports as shown in in Table 3 due to differences in data sources.

Hardwood Lumber

Global exports of hardwood lumber in 2017 totaled 26 million m³, up 12% from 2007 (Table 5). The United States, Thailand, Malaysia, and Russia were the top exporters of hardwood lumber in 2017. China was by far the top importer of hardwood lumber in 2007 and 2017, and its share of global imports more than doubled in the 2007-2017 time period, increasing from 16% to 33% (Table 5). In a

relatively short time, Vietnam has become a major importer of hardwood lumber, moving ahead of both Italy and the U.S.

Table 5. Top five hardwood lumber importing and exporting countries, 2007-2017 in thousand m³ [32].

Imports				Exports			
2007 (27,905)		2017 (38,402)		2007 (23,188)		2017 (25,875)	
China	4,366	China	12,647	United States	2,746	United States	4,505
Italy	1,593	Vietnam	1,618	Malaysia	2,481	Thailand	4,381
United States	1,227	Thailand	914	Brazil	1,699	Malaysia	2,163
Canada	1,103	United States	723	Germany	1,041	Russia	1,678
Germany	979	Italy	713	Thailand	973	Croatia	1,022

In 2017, the United States exported 4.5 million m³ of hardwood lumber [8], a 14% increase from the previous year and 62% more than 2007 (Table 6). China was the chief market for U.S. hardwood lumber, absorbing 54% of all U.S. exports by volume and 57% by value, followed by Canada and Vietnam [8]. Red oak, yellow-poplar, white oak, and ash made up 70% of all hardwood exports [8]. Imports of hardwood lumber fell by one-third from 2007 to 2017. A majority of hardwood lumber imports to the U.S. (46%) originated in Canada. Ecuador, Brazil, and Cameroon were the most important sources of tropical lumber for the U.S. in 2017, largely importing balsa, sapelle, and ipe [8].

Table 6. Top five U.S. hardwood lumber trade partners, 2007 and 2017 [8]. All quantities in thousand m³.

Imports				Exports			
2007 (1,229)		2017 (836)		2007 (2,746)		2017 (4,458*)	
Canada	481	Canada	382	Canada	834	China	2,416
Brazil	138	Brazil	88	China	499	Canada	549
Uruguay	84	Germany	73	Mexico	237	Vietnam	444
Ecuador	72	Ecuador	63	Italy	209	Mexico	309
Germany	63	China	40	Vietnam	160	U.K.	104

*Difference with total U.S. exports as shown in in Table 5 due to differences in data sources.

In 1963, 68% of hardwood lumber in the U.S. was consumed domestically for furniture and construction [33]. However, beginning in the 1990s, the United States has exported a growing percentage of output, increasing from 10% in 2000 to 20% in 2017 [32]. This is, in part, due to decreased domestic demand for “grade” lumber, as manufacturing of furniture, millwork, flooring, and other products moved from the U.S. to countries with lower costs and as substitute materials took market share away from solid wood (Figure 2).

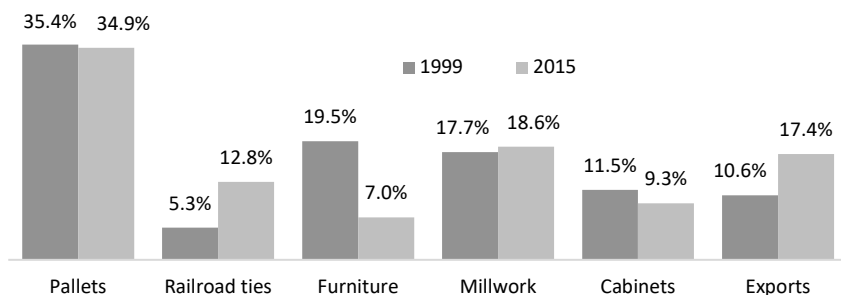


Figure 2. U.S. markets for hardwood lumber, 1999 and 2015, by volume [34].

Wood-Based Panels and Veneer

International trade of wood-based panels increased at an average annual rate of 6.7% between 1961 and 2017, compared with a 5.2% production growth rate [32]. China, Canada, and Germany were consistently the top exporters of wood-based panels between 2007 and 2017 (Table 7); China's share of global exports increased from 13% in 2007 to 16% in 2017. Top importers of wood-based panels were equally consistent, with the U.S., Germany, Japan, the U.K., and Canada importing remarkably steady volumes between 2007 and 2017 (Table 7).

Table 7. Top five wood-based panels importing and exporting countries, 2007 and 2017 [32]. In thousand m³.

Imports				Exports			
2007 (79,553)		2017 (84,570)		2007 (82,957)		2017 (90,654)	
United States	14,311	United States	14,248	China	11,022	China	14,457
Germany	5,979	Germany	5,655	Canada	9,530	Canada	8,328
Japan	5,357	Japan	3,953	Germany	8,932	Germany	6,328
U.K.	3,814	U.K.	3,792	Malaysia	6,595	Thailand	5,440
Canada	3,325	Canada	3,302	Indonesia	4,077	Russia	5,324

Between 2007 and 2017, the United States increased its imports of softwood veneers by 25% and decreased its imports of hardwood veneer by 58%, while decreasing its exports of both softwood and hardwood veneer (Table 8). Imports of medium density fiberboard (MDF), softwood plywood, and particleboard increased considerably in the 10-year period, while those of hardboard and hardwood plywood decreased. Exports of veneer, oriented strand board (OSB), and hardboard decreased between 2007 and 2017 and increased for MDF, plywood, and particleboard. Major trade partners for 2017 are listed in Table 8.

Table 8. U.S. imports and exports of wood-based panels and veneer, 2007-2017. All quantities in thousand m³ except veneer (in thousand m²) [8].

Product	2007	2017	Change	Major Trade Partners (in 2017)
<i>Imports</i>				
Softwood veneers	162,806	203,871	+25%	Canada, N. Zealand, Italy, Germany, Slovenia
Hardwood veneers	200,135	83,254	−58%	Canada, China, Italy, Brazil, Cote d'Ivoire
OSB ¹	5,999	5,570	−7%	Canada, Romania, China, Russia, Belarus
MDF ²	1,320	4,088	+210%	Germany, China, Canada, Chile, Switzerland
Hardwood plywood	3,449	2,958	−14%	China, Russia, Indonesia, Canada, Malaysia
Softwood plywood	970	1,604	+65%	Brazil, Chile, Canada, China, Uruguay
Particleboard	900	1,216	+35%	Canada, Brazil, Italy, Sweden, Mexico
Hardboard	1,193	274	−77%	Canada, Brazil, China, Chile, Germany
<i>Exports</i>				
Softwood veneers	44,191	22,459	−49%	Canada, Mexico, Germany, Spain, BeLux ³
Hardwood veneers	301,232	182,525	−39%	Canada, Mexico, Spain, Germany, Egypt
OSB	234	176	−25%	Canada, Mexico, Korea, FPI ⁴ , Costa Rica
MDF	353	459	+30%	Canada, Mexico, BeLux, Portugal, Australia
Hardwood plywood	159	180	+13%	Canada, Mexico, China, Bahamas, Leeward Is.
Softwood plywood	284	474	+67%	Canada, China, Mexico, Leeward Is., Dominican
Particleboard	228	246	+8%	Canada, Mexico, Italy, Honduras, China
Hardboard	358	201	−44%	Canada, Mexico, BeLux, U.K., Australia

¹ OSB = oriented strand board

³ BeLux = Belgium-Luxembourg

² MDF = medium density fiberboard

⁴ FPI = French Pacific Islands

Value-Added Wood Products

Value-added wood products include furniture, kitchen cabinets, millwork, wood flooring, decking and railing products, windows, doors, and others. Domestic manufacturing of value-added wood products in the U.S. has declined over the past three decades due to factors like the 2007-2009 recession and increased competition from imports. For example, more than 70% of the nonupholstered furniture consumed in the U.S. is now imported [35]. There have also been changes in the sourcing of value-added products as importers look for lower cost suppliers. For example, in 2015, China accounted for just below 59% of total U.S. imports of household and institutional furniture and cabinets, by value, down from 61% in 2010, while Vietnam has steadily increased in participation [34]. Imports from China grew 2.9% in 2016, while those from Vietnam grew 29.8% in the 2015-2016 period [36]. The decline in domestic manufacturing of value-added products has led to a decrease in domestic demand for grade lumber, or lumber used for value-added products (Figure 2). Other market segments, such as flooring and millwork, have shown similar trends.

From 2007 to 2017, exports of U.S. “industrial” products, including cooperage products, treated lumber, railroad ties, wood poles, siding, and pallets, have shown high growth (Table 9), while exports of high value-added products, such as doors,

windows, flooring, and molding, have decreased. Trade partners for U.S. value-added wood products are diverse but, in general, include Canada, Mexico, China, Japan, and Germany.

Table 9. U.S. exports of value-added products, 2007 and 2017, in thousands of dollars [8].

Product	2007	2017	Change	Major Trade Partners
Cooperage prod. ¹	89,140	209,856	+135%	U.K., Ireland, Canada, Japan, Spain
Treated lumber	74,278	172,766	+133%	China, Mexico, Leeward Is., Bahamas, Jamaica
Railroad ties	63,779	149,118	+134%	Canada, Mexico, Brazil, Colombia, Germany
Poles	41,872	123,342	+195%	China, Canada, Ghana, Mexico, Saudi Arabia
Siding	14,914	120,936	+711%	Mexico, Canada, Germany, Bahamas
Packing material ²	89,431	116,487	+30%	Canada, Mexico, Germany, Korea, Japan
Doors & frames	145,637	84,665	−42%	Canada, Mexico, Bahamas, Japan
Windows & frames	76,810	62,591	−19%	Canada, Japan, Australia, New Zealand, Korea
Flooring	110,794	39,513	−64%	Canada, Mexico, Bahamas, U.K.
Molding	67,339	29,308	−56%	Canada, Mexico, Japan, Bahamas, China

¹ Includes casks, staves, hoops
² Includes pallets, skids, cases, boxes, etc.

Free Trade Agreements

A Free Trade Agreement (FTA) is an agreement between two or more countries that come together to participate in trade through established terms, effectively reducing barriers to export [37]. As of 2019, the U.S. has 14 established FTAs with 20 countries that help to create a more stable environment for international trade, often at lesser costs (Table 10) [37]. Benefits brought forth by FTAs include access to foreign markets, economic growth, and job creation by providing a number of opportunities, such as the ability to bid on government contracts, guarantee that U.S. investors will receive adequate compensation, ability for suppliers to offer services, enforcement of American intellectual property rights, and development of product standards in the FTA partner country [37, 38].

Partnering countries often regulate the conditions for preferential treatment and outline a detailed plan for implementation. To reap benefits from a Free Trade Agreement, products must be manufactured in the FTA territory, meet the appropriate Rule of Origin specifications, and conform to the required documentation [39]. In addition, many trade agreements do not immediately go into effect; instead, they often roll out gradually. For example, the U.S.–Chile Free Trade Agreement began in 2004, with 80% of consumer industrial goods exported from the U.S. to Chile considered immediately duty free [40, 41]. Of the remaining 20% of consumer goods, forest products were among the first to have tariffs phased out, and all U.S. products entering Chile have been duty free as of January 1, 2015 [40].

Prior to finalizing your destination country and drafting a business plan, you should explore how active Free Trade Agreements might benefit you [38]. To help determine what tariffs will be associated with your products, you can use the International Trade Administration’s FTA Tool, available at <https://beta.trade.gov/fta>.

Table 10. U.S. Free Trade Agreements [37, 42].

Country	Implementation Year	Country	Implementation Year
Australia	2005	Korea	2012
Bahrain	2006	Morocco	2006
Chile	2004	NAFTA ²	1994
Colombia	2012	Oman	2009
DR-CAFTA ¹	2006-2009	Panama	2012
Israel	1985	Peru	2009
Jordan	2001	Singapore	2004

¹ DR-CAFTA: Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua

² NAFTA: Canada and Mexico (was being renegotiated at the time of writing)

Trade of forest products, or any other product, depends on many factors, including foreign policy, income level, investment, transportation costs, technology, exchange rates, trade policy, consumer behavior, competitiveness, and many others. As outlined in the box in the next page, factors beyond the control of exporters or importers can dramatically affect trade between two countries.

The Trade War With China and the COVID-19 Global Pandemic

The trends discussed in this chapter show that China has become a key player in forest products trade and manufacturing, and a major partner of American exporters. U.S. hardwood lumber producers hit by the recession of 2008-2009 have increasingly relied on fast-growing Chinese markets for their products. In fact, in less than 20 years (1999-2017), the share of U.S. hardwood lumber exports going to China grew from less than 5% to over 50%, by volume (Figure 3). However, in 2018, the U.S. government began imposing tariffs on thousands of Chinese imports to adjust what it considered unfair trading practices. China responded in kind, and by the middle of 2019, the two largest world economies were engaged in a trade war. The U.S. imposed tariffs on more than \$360 billion of Chinese products, and China retaliated with tariffs on more than \$100 billion of U.S. products, including hardwood lumber. The impacts of these developments on the U.S. hardwood lumber industry have been devastating. For example, total annual exports of U.S. hardwood lumber to China fell by 40% from 2018 to 2019 (Figure 3).

On January 15, 2020, the U.S. and China signed “phase one” of a trade deal in an effort to relieve tensions between the two countries [43]. However, the outbreak and rapid spread of the novel coronavirus (COVID-19) that originated in China threatened to delay implementation of the deal. Government actions, including quarantines, temporarily halting factories and flights, and travel restrictions, disrupted supply chains and slowed down commerce [44]. By the end of April 2020, the U.S. economy faced its worst economic downturn since the Great Depression, with more than 20 million jobs lost in April [45] and global trade dramatically reduced [46]. This example shows that international trade is subject to additional uncertainties that are usually not present in domestic operations.

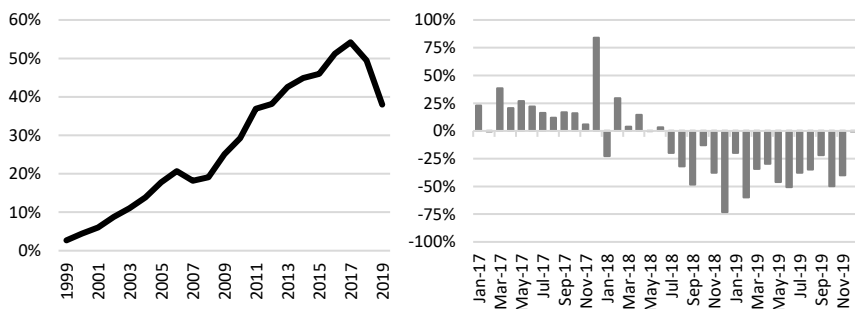


Figure 3. Percentage of U.S. hardwood lumber exported to China (left), and U.S. hardwood lumber exports to China as a percentage change from the previous year (right) [47, 48].

Sustainability Issues Affecting the Trade of Forest Products

There are several sustainability concerns surrounding the forest products industry, particularly deforestation and illegal logging. As a result, a variety of government entities, industry representatives, and other organizations have taken several measures to address these concerns, including the creation of voluntary forest certification systems and regulations aimed at restricting illegal logging. This section briefly discusses environmental certification and illegal logging regulation, as they both have significant impacts on the international trade of forest products. International Standards for Phytosanitary Measures are also discussed as measures to mitigate the global spread of invasive pests.

Forest Certification

Voluntary forest certification programs were created as a market-driven mechanism to ensure forests are sustainably managed from an environmental, economic, and social point of view. Forest certification programs are often implemented to incentivize producers to participate in sustainable practices through assumed consumer valuation and market demand for products sourced in an environmentally responsible manner. There are a number of forest certification programs with both national and international reach. The most relevant for international trade include the Forest Stewardship Council (FSC) [49], the Programme for the Endorsement of Forest Certification (PEFC) [50], and the Sustainable Forestry Initiative (SFI) [51]. The SFI is a predominantly American standard, while both the FSC and PEFC have international reach. The FSC was officially born in 1994 [49], becoming the first forest certification system with global reach. Today, the FSC operates in over 70 countries. The PEFC is an “umbrella” organization that endorses national certification systems, such as the SFI and the Canadian Standards Association (CSA). There were approximately 439 million hectares (ha) of certified forestland globally, equating to roughly 11% of total forest area, in 2015 (Table 11) [52]. By mid-2017, the FSC and PEFC organizations reported a certified forest area of 199 and 304 million ha, respectively. Accounting for areas with double certification of about 71 million ha, the total forest area under certification was 431.4 million ha in mid-2017 [53].

A large percentage of forests in North America and Western Europe are certified under some sort of program (Table 11). Approximately 90% of all certified global forestland is located in the Northern Hemisphere, and only approximately 2% of tropical forests are certified [54]. In fact, the top five countries in PEFC- or FSC-certified area are located in North America and Europe (including Russia), while Western Europe had the largest proportion of its forestland under certification (65%) in 2015 (Table 11).

Table 11. Forest area under certification [54-56].

Region	Certified forest area (million ha)			% of forestland under certification		
	2006	2010	2015	2006	2010	2015
North America	157.7	199.8	217.3	33.5%	32.6%	35.4%
Western Europe	78.9	85.0	109.6	50.7%	51.2%	65.2%
CIS*	13.0	29.9	62.9	1.4%	3.6%	7.5%
Oceania	6.4	11.6	12.5	3.3%	5.6%	6.5%
Africa	2.1	7.3	6.5	0.3%	1.2%	1.0%
Latin America	11.1	14.4	17.1	1.1%	1.6%	1.8%
Asia	1.1	8.6	13.1	0.2%	1.5%	2.2%
Total	270.3	356.6	439.0	6.8%	8.8%	11.0%

* CIS = Commonwealth of Independent States (i.e., former Soviet Republics)

Forest certification systems are accompanied by a labeling and tracing system, known as chain-of-custody (COC) certification. This includes all the processes and documentation used to monitor the material as it moves through the supply chain and ensures that the claims made about the origin of a wood raw material are still valid when they reach the final customer [57]. By December 2018, FSC reported 35,772 COC certificates in 123 countries, while the PEFC reported 11,466 COC certificates in 71 countries. The demand for and use of products with raw materials sourced from sustainably managed forests is increasing. In 2016 the amount of roundwood certified by FSC and PEFC was estimated at 689 million m³, which represents 38% of the total industrial roundwood production [58].

The impacts of forest certification on the global trade of wood products can be grouped into roughly three categories: market access, demand growth, and consumer willingness to pay a premium for certified products [59]. Based on the growth of COC certificates, there appears to be a growing niche for certified products. The number of FSC COC certificates has tripled from 11,847 to 35,772 between 2008 and 2018, with the greatest growth in Asia (19% average annual growth rate), Latin America and the Caribbean (15%), and Europe (13%). Surprisingly, the number of COC certifications in North America has fallen since 2014, when there were 4,012 certificates, to 3,239 in 2018 (Figure 4). The total number of certificates for the PEFC system by December 2018 was 11,466, with 82% in Europe, 12% in Asia, and 4% in North America [50].

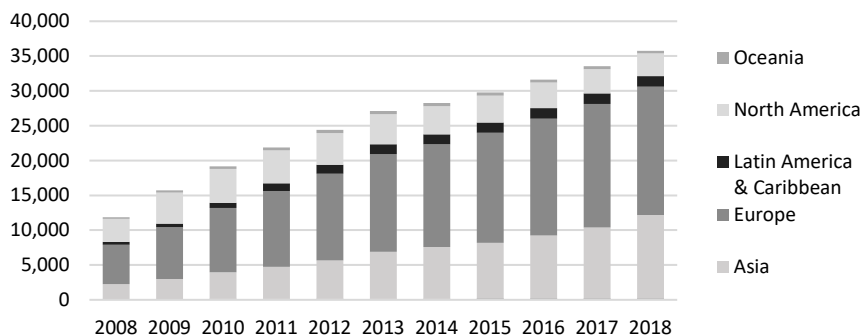


Figure 4. Number of FSC chain of custody (COC) certificates by region [49]. All figures are for December of the corresponding year. Figures for Africa are not shown.

Price premiums for forest certification reported in the literature range from 1% to 40% [60] and depend on several factors. For example, products made with tropical species, in general, are priced at higher premiums than those from temperate species [61]; likewise, low-end products, purchased frequently and with a lower base price, tend to command a higher price premium [60]. Forest certification has historically had little impact on trade of value-added products; however, it positively affects trade of raw materials, such as logs and lumber [62].

Legislation to Curtail Illegal Logging

Illegal logging poses a significant threat to the global ecosystem, as well as to international markets. It is estimated that annual illegal timber trade is worth up to \$152 billion, which is a staggering 30% of the total timber trade [63], and costs governments approximately \$10 billion [64]. In countries where illegal logging is a customary practice, it can account for 20%-90% of overall roundwood production [65]. One study estimated that in 2013, most illegal timber (85%) originated from Indonesia, Brazil, and Malaysia; however, many smaller countries produce high proportions of illegal timber, some approaching 100% [66]. To address this issue, many governments have enacted laws that aim to curtail the trade of illegally sourced timber. The two legal frameworks with the largest impact on global trade of forest products are the Lacey Act in the U.S. and the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan in the European Union.

Lacey Act

The Lacey Act, legislation enacted in 1900 to ban the traffic of illegal wildlife, was amended in 2008 to include forest products [67], making it the first ban on illegally sourced wood products. Under the amended Lacey Act, it is unlawful to *“import, export, transport, sell, receive, acquire or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation*

of the United States or in violation of any Indian tribal law” [68]. This law is particularly relevant for forest products importers, who are largely responsible for ensuring the legal origin of imported products [67]. Steep penalties are enforceable for individuals or companies that break the law, which might include product forfeiture, up to five years in prison, or up to \$250,000 in fines for individuals and \$500,000 for corporations, if there was *knowledge* of illegal sourcing [69].

There have been recent high-profile cases against U.S. companies regarding Lacey Act enforcement. A guitar manufacturer was fined \$300,000 and required to forfeit tropical hardwood lumber shipments estimated at \$419,000 seized from India and Madagascar for Lacey Act infractions [70]. An importer and distributor of wood flooring was found guilty of knowingly importing illegal hardwood flooring primarily from eastern Russia, facing the largest Lacey Act penalty to date, \$13 million in fees, forfeited assets, and community service [71]. The U.S. implemented increasingly stringent import regulation to decrease deforestation by illegal logging, incentivizing countries with a high activity in illegal logging to implement more sustainable practices [65]. There is evidence that the Lacey Act has had a significant effect on the trade of forest products. One study concluded that the amendment had a statistically significant effect on forest products imports to the U.S. [72], and the authors were able to attribute increases in prices and declines in import quantities from specific “high-risk” countries (Bolivia, Brazil, Indonesia, Malaysia, and Peru) to the Lacey Act [73]. Another study reported that imports of illegal wood to the U.S. decreased by 32%-44% after the Lacey Act was amended in 2008, due in part to the effects of the law. However, the same study estimated that forest products imports from illegal sources amounted to \$2.8 billion in 2013 [74].

Forest Law Enforcement, Governance, and Trade Action Plan

The European Union’s Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan was proposed in 2003 by the European Commission in an effort to combat illegal logging. The main focus of the FLEGT is to support timber-producing countries, promote trade of legal timber, promote public procurement policies, support private sector initiatives, safeguard financing and investing, use existing legislation or adopt new legislation to support the plan, and address the problem of “conflict timber” (e.g., timber from war-torn regions) [64]. The basis for the FLEGT’s implementation is a voluntary agreement between the EU and governments of exporting countries (known as voluntary partnership agreements), by which a government agrees to ensure that timber exported from its country complies with the country’s laws [59]. By 2019, 15 tropical countries were negotiating or implementing volunteer partnership agreements with the European Union [63]. The FLEGT framework requires importers to apply “due diligence,” providing access to information about the origin of the timber and implementing risk assessment and mitigation procedures (of timber coming from a specific country being illegally sourced) [59]. An evaluation of the FLEGT’s effectiveness concluded that its objective of reducing EU imports of illegal timber is being achieved and that it is

contributing to improved forest governance in the target countries [75]. However, similar to the Lacey Act, the FLEGT has unintentionally contributed to a perception that all tropical timber is potentially high-risk, likely contributing to the 60% decrease in tropical lumber imports to the EU from 2003 to 2014 [75].

International Standards for Phytosanitary Measures

The International Standards for Phytosanitary Measures (ISPM), developed by the International Plant Protection Convention (IPPC) and administered by the Food and Agriculture Organization (FAO) of the United Nations, were created to combat the spread of invasive pests through international trade of plant-based products [76]. ISPM 15: *Regulation of Wood Packaging Material in International Trade* specifically addresses wood packaging material made of unprocessed raw wood, both softwood and hardwood [77]. Packaging included in the standard are pallets, boxes, crates, cable drums, and dunnage. Some materials are considered low-risk and are thus exempt from the standard, including thin wood (6 mm or less in thickness), reconstituted wood (plywood, particleboard, OSB), barrels for wine or spirits, and sawdust or wood shavings. When using a conventional heat chamber or kiln, ISPM 15 requires that wood packaging be heat-treated and that its entire cross section reach 56°C for 30 minutes [77]. Requirements differ when using dielectric heating. If heat treatment is not feasible, standard fumigation with methyl bromide is allowed, although not recommended by IPPC due to its ozone depletion [77]. Before any treatment, the wood material must be debarked. Treated material is approved and marked (Figure 5), and supervision and authorization are provided by a national plant protection organization. As of the time of writing, 183 countries participate in the IPPC and its standards.²

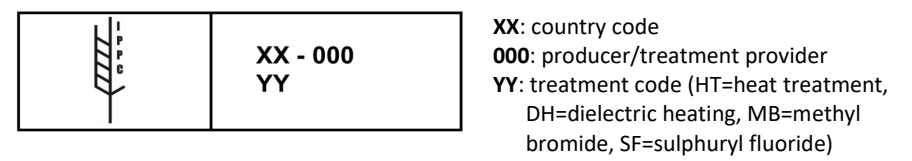


Figure 5. Example of mark to certify that wood packaging material was subjected to approved treatment according to ISPM 15 [77].

There are additional requirements for remanufactured wood, defined by ISPM 15 as a unit of wood packaging material with approximately one-third of its components replaced. Remanufactured material must have all preexisting marks destroyed, be re-treated, and a mark reapplied according to the standard [77].

² For a list of contracting parties, visit <https://www.ippc.int/en/countries/all/list-countries/>.

International phytosanitary compliance often stands as a significant barrier for small to medium sized firms, but to keep this document concise, it is only briefly mentioned here. For more detailed information and useful tools related to phytosanitary compliance, please access the following resources from the USDA's Animal and Plant Health Inspection Service (APHIS).

- Miscellaneous and Processed Products Import Manual [78]. Lists background, procedures, and reference tables for the regulation of imported processed articles of plant and non-plant sources (https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/miscellaneous.pdf).
- Phytosanitary Certificate Issuance and Tracking System (PCIT) [80]. Tracks the inspection of agricultural products and certifies compliance with plant health standards of importing countries (<https://pcit.aphis.usda.gov/pcit/faces/signIn.jsf>).
- Phytosanitary Export Database (PExD) [79]. Contains phytosanitary import requirements commodities from the U.S. to foreign countries (access through link in the PCIT website, see above).

In addition, the Food and Agriculture Organization's Guide to Implementation of Phytosanitary Standards in Forestry [81] provides information on International Standards for Phytosanitary Measures and the role of forest management practices in implementing phytosanitary standards and facilitating safe trade (<http://www.fao.org/forestry/foresthealthguide/en/>).

Chapter Questions

1. Describe the product you want to export.
2. What market does this compete in?
3. Who is your customer in this market?

Chapter 3: Introduction to Marketing

Marketing can be defined as the process of identifying customer needs, incorporating those needs into products and services, and pricing, promoting, and delivering those goods to the customer. Entrepreneurs often overlook marketing when they want to start a business. In many instances, an individual has a great idea for a product or service and assumes that there will be demand for it, or the individual may be very good at making a product. However, competition often arises, and the individual has to identify why the product is better or different. All good business start-ups thoroughly evaluate the market before investing, as they need to completely understand their competitive advantage in the marketplace. By the end of this chapter, readers should have an understanding of the marketing mix for their product, know how to conduct market research, know how to reach potential customers, have an understanding of online marketing methods, and have an appreciation of challenges associated with entering foreign markets.

Marketing Fundamentals — The Marketing Mix

Any marketing strategy should include a detailed set of actions that the business can take to increase the demand for its products. These potential actions can be grouped into four categories — product, price, promotion, and placement (or distribution) — known collectively as the 4 P's of marketing.

Product

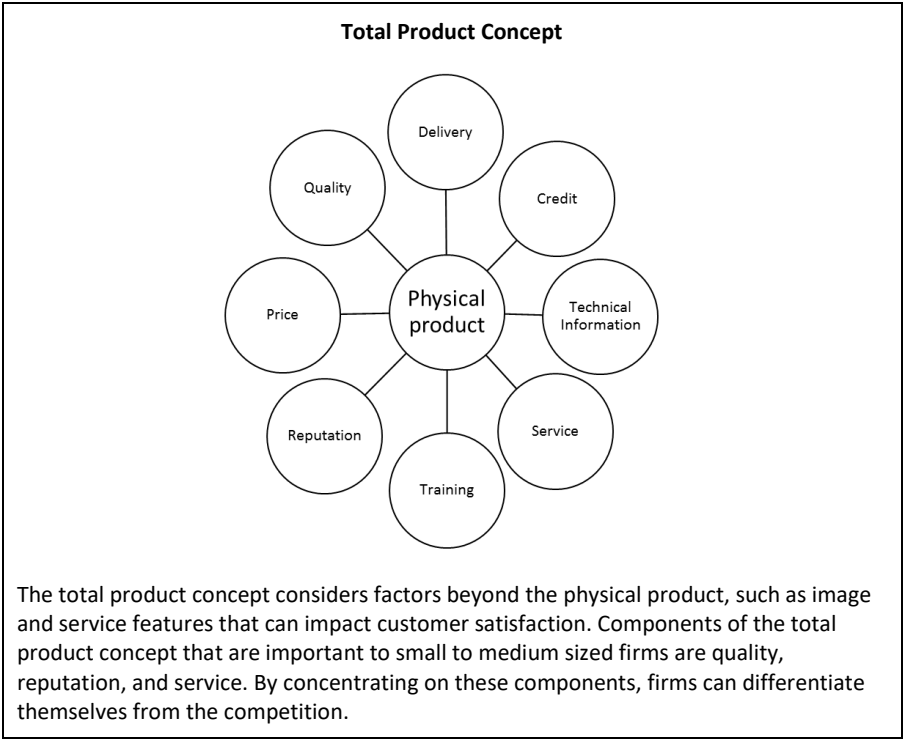
A product is any object, service, place, organization, idea, or personality that satisfies a customer want or need. The three main types of products addressed here are commodity products, specialty products, and differentiated products.

Commodity products. Hardwood lumber, dimensional lumber, and plywood are all considered commodity products, or items that are manufactured to a standard set of specifications. For commodity items, there is little differentiation in products between manufacturers. For this reason, competition in the commodities market is based primarily on price. It is often a surprise to small to medium sized manufacturers of hardwood lumber just entering the marketplace how little control they have over the selling price of their products.

Specialty products. On the other hand, specialty products are developed and offered to a small market segment or group of customers. Competition in specialty product markets is typically based on product features over price, often providing companies with the potential for higher profit margins.

Differentiated products. Unique attributes or variations that satisfy different market segments are a defining characteristic of differentiated products and often increase product value. Compared with commodity and specialty products, differentiated products provide manufacturers with the greatest amount of control over selling price.

Product differentiation involves developing a real or perceived difference between your company’s product and that of your competitors. For a small to medium sized firm, product differentiation is often executed through superior product quality and customer service; for example, hardwood lumber manufacturers might provide buyers with exceptional consistency in thickness, color, and grade. Many large-volume hardwood lumber producers do not have procedures in place to identify when their equipment is producing inconsistent lumber thicknesses, but as a low-volume manufacturer, the ability to inspect your product for consistent thickness and color enables you to better satisfy your customers’ desire for quality. Ultimately, it is important to remember that your product is more than its physical aspects, including intangibles, such as reputation or services, like delivery, credit, and customer support (see box below).



Product adaptation is also important to consider when entering foreign markets, as exporters sometimes need to modify their products or services to comply with foreign regulations and meet consumer expectations overseas [82]. For example, the European Union has more stringent requirements for packaging and product safety than other markets; thus, companies interested in exporting to countries in the EU need to consider compliance costs when making pricing decisions [83]. Climate conditions in foreign markets may require different products or processes. For example, large differences in prevailing humidity between the location of production and use may require firms to dry wood to a different moisture content or change product design to allow for more or less wood expansion [84]. Differences in culture may also require firms to make product adaptations to adjust their values and attitudes in the target markets (Appendix C). Countless examples exist of companies that have overlooked cultural differences, leading to market introduction failure. Firms interested in starting international sales need to implement a structured process to evaluate whether a product needs adaptation.

Promotion

Promotion is communicating the firm's value proposition to customers. The objectives of promotion are to inform, persuade, remind, and associate. Promoting your business and products facilitates the following:

- Build awareness among potential users.
- Differentiate your service from that of your competitors.
- Communicate the benefits of using your firm.
- Build a favorable image.
- Persuade customers to use your firm.
- Eliminate preconceived misconceptions.
- Inform existing and potential clients of new services.

As part of the strategic planning process, a company exploring international sales must decide on a *promotional mix*, including advertising, trade show participation, online presence, and social media. These topics are discussed in this section.

Advertising

The ultimate purpose of advertising is to communicate with current and potential customers [23]. Effective advertising “*interprets or translate the qualities of products and services in terms of consumer needs, wants, desires, and aspirations*” [19]. A well-executed and targeted advertising campaign can reach a large number of people and increase a foreign consumer base [38]. Global advertising spending reached \$544 billion in 2018, with notable increases in digital and online media advertisement [85]. The prevalence of print (e.g., magazines, newspapers) and

television advertising has decreased [19]; however, in some countries, print media and television still enjoy a large share of the media market.

Small to medium sized operations commonly use paid advertisements in local newspapers and trade publications to promote products by stating current offerings and competitive advantages. An important aspect of paid advertisements is that the message should suit your target audience and adequately reflect the company's values and production capacities.

To develop an effective advertising campaign, a number of steps must be taken, including (1) conducting market research, (2) outlining campaign objectives, (3) developing messages for the target markets, (4) choosing the media, (5) allocating resources, (6) implementing the campaign, and (7) evaluating results [1]. Developing messages for target markets is often challenging when considering overseas consumers, particularly because you must be creative while conforming to cultural norms [1]. When deciding on messaging for foreign markets, it is important to consider the legal constraints in the countries where the advertising campaign will be implemented; for example, some countries ban the use of comparative language, while others have special taxes for advertising.

Developing a company brochure can also be an effective and economical promotion tool for your business. A basic, informative brochure can be created in-house; however, if resources are available, hiring a professional writer, graphic designer, or both is likely a worthwhile investment. To extend the utilization period of a company brochure, avoid including information that could become outdated, such as prices; instead, direct interested parties to contact the company with inquiries about current pricing. A brochure should include the following elements:

- A clear, positive image of the company.
- Mission and values of the organization.
- Product information.
- Benefits available to clients.
- Qualifications and background of the firm, unique attributes.
- Available services and client benefits.
- Contact and professional information.

International Trade Shows and Trade Missions

Participation in international trade shows is an important component of a company's international promotional strategy. A trade show is a *"stage-setting event in which firms present their products or services to prospective customers in a pre-formatted setting"* [86]. Other than door-to-door marketing, trade shows are the only promotional investment that allow companies to meet potential customers face-to-face. Trade shows can help a firm increase awareness of its

products and services, generate sales, find new customers and maintain existing ones, identify products for import or export, and evaluate the competition [23]. Trade shows are essential to reaching a foreign consumer base, allowing businesses to foster relationships with potential customers in new or existing markets. However, attendance at trade shows can be quite expensive, with direct costs, “hidden” costs (associated with planning and setup), and opportunity costs (associated with staff not working in their normal role) typically totaling \$10,000 or more. Therefore, to make trade shows worthwhile, companies must plan carefully. This section includes a few recommendations for successful participation.

Set goals. The foundation for trade show success is establishing goals that can help an exporting company make professional connections and increase sales [87]. Goals must be specific, measurable, and have a time frame. Common objectives for trade show participation are to promote and increase awareness of a company and its products, enter new markets, achieve sales leads or generate orders from new and existing customers, gather market intelligence, and introduce and demonstrate new products [88]. To effectively evaluate the results, goals must (1) be measurable, for example, reaching 20% of target audience attending a show; (2) have an established time frame, for example, generating a certain number of leads per hour; and (3) estimate a desired return on investment (ROI) for trade show participation (see box on page 32).

Identify the right trade show and audience. Prior to attending any show, make sure that the right audience has been identified, and that it is aligned with the industry and products for export [87]. It can be beneficial to contact firms that exhibited at past versions of a specific show to inquire about the receptivity and business they received at such event [87]. A list of trade shows related to wood products can be found in Appendix D.

Look for funding. As mentioned before, trade show participation costs can be quite high; however, there is help available at the federal and state level. The Small Business Administration’s State Trade Expansion Program (STEP), for example, provides grants to states so they can, in turn, offer aid to small business to develop their export operations. To find assistance available in your state, visit <https://www.sba.gov/local-assistance/find/>. In addition, consider participating in a trade show as part of a national pavilion, which facilitates arrangements and may reduce costs. The USDA Foreign Agriculture Service also supports efforts for inbound and outbound trade missions where you could visit trade shows, visit with foreign buyers, or have them visit your shop.

Find the right location for your booth. Booth location is vital to trade show success. If given the opportunity to choose, the ideal location for a booth is near the middle of the room with heightened foot traffic. Avoid being near bathrooms, food courts, directly in front of the entrance, and out of the line of view [89].

Select and train your staff. Having well-trained personnel staffing the booth is as important for successful trade show participation as the booth design and location. Booth staff should be inviting, friendly, and knowledgeable on company and product information. A dress code should be established, and cell phones, computers, and food should be avoided at the booth [89]. Sales people with little or no trade show experience may have a difficult time with a trade show environment owing to its fast-paced nature, so firms should consider hiring a training professional for optimum success [87]. Staff training, no matter how minimal, reflects directly on leads and sales generated at trade shows. Training sessions may also provide a good opportunity to emphasize the overall trade goals and company values. Depending on the location of the show, it may prove beneficial to bring an interpreter in case communication becomes difficult or impossible. Lastly, it is important to bring a member of authority from the firm in case there are potential customers at the show who want to finalize a business venture.

Give attendees a reason to stop at your booth. This is not an easy task. To be interesting, a booth needs to stand out as well as provide an accurate depiction of the company brand, values, and products. The display design and construction process can be rather complex and expensive, often requiring a number of skilled professionals, such as graphic designers and 3D designers [87]. Booth signage should be legible and include a bold statement, company name and/or logo, and supporting statement (Figure 6) [87]. The average person takes three to seven seconds to look at a display, leaving little time to read lengthy captions and descriptions [87]. It is important to plan what messages, samples, or trials will be offered to attendees that will entice them to stop at your booth. Giveaways can be an effective way of attracting attendees to a booth; however, they should not be given to everyone. Instead, they should work to entice potential prospects with items that display company contact information and logos, as well as appeal to all five senses [89]. Clearly, visual and audible senses will be covered through the booth and presentation, but taste, feel, and smell can be covered through food items such as popcorn, roasting nuts, coffee, and even beer [89].

Make sure that attendees stopping at your booth have a positive experience. Once you attract attendees to your booth, make sure they have a positive experience. This can be accomplished by entertaining the audience, showing something new and interesting, giving away gifts, collecting business cards for a prize, offering free samples to registered buyers, and handing out brochures. If there is a sufficient budget, entertainers can be hired to attract traffic to a booth. It is important to remember that attendees are at a trade show for a reason; thus, interactions with potential customers should focus on highlighting the benefits to the customer more than product features [89].



Figure 6. A trade show booth should be inviting, interesting, and conveniently located.
Photo credits: Omar Espinoza.

Leverage social media. Social media has exploded and extended its importance into the trade show realm. It is important to be active on social media before, during, and after the show. Social media can be useful in creating awareness before the show, so people recognize the name of the company. During the show, take pictures and post tweets or other media updates, appealing to consumer preferences and suggesting they visit the provided booth number [87]. Creating a hashtag around the booth theme or using the show hashtag can also prove helpful to recruiting visitors to your booth [89]. It can also prove effective to switch forms of media, for example from Facebook to Twitter, as days or even hours progress, so that different followers are reminded of your presence and visit the booth [87].

Collect lead and feedback information. It is helpful to develop and use a form to record leads, with information that will facilitate follow-up and help evaluate results and improve future participations. Keeping track of booth attendee numbers can help to justify the need for international trade show participation [87]. Firms should keep all information gathered from the event, including notes, lists of products, staff, feedback, photos, leads, and social media post documentation [87].

Follow up on leads and track outcomes. Lead follow-up is often the most overlooked aspect of attending a trade show. Approximately four out of five — a

shocking 80% — of trade show leads are not pursued [87]. Follow-up can be done through phone calls, social media, direct mail, newsletters, and direct visits [89]. It can be helpful to establish a follow-up timeline to foster long-term business partnerships, because recognizing leads at an early stage of the buying cycle is important to track long-term results. Lastly, calculate the trade show ROI, compare it to your goals, and adjust accordingly (see box below).

Calculating the Return on Investment for Trade Show Participation

There are different ways to calculate the ROI from trade show participation, all of which compare the costs incurred with the revenue generated. While the costs are relatively easy to identify, calculation of returns requires some assumptions and always involves tracking leads converted to sales.

Trade show costs:

- Exhibit design and space, services (usually 40% of the total cost).
- Logistics, including shipping, storage, installation, and dismantling.
- Travel expenses, including hotels, airfare, meals, and car rental.
- Promotional expenses, including gifts, printed materials, and others.
- Staffing, including current employees and temporary hires.

Trade show benefits:

- Sales from leads.
- Number of leads generated.
- Increased brand awareness.
- Number of customer visits.

What is a good ROI? It depends, but a return higher than 500% signals satisfactory performance, while a return between 100% and 500% can be considered fair [90].

Federal and state governments, as well as industry organizations, organize trade missions, which are prearranged trips generally attended by businesspeople and government officials to promote trade between countries [91]. These trips help businesses to explore export opportunities and create contacts with buyers, suppliers, agents, and government officials. Trade missions usually include meetings with foreign executives and government officials, participation in relevant industry events, roundtables on local business and legal practices, and visits to companies and facilities [92]. A trade mission involves high costs and advanced planning, so it is important to provide the mission leader with company and product profile information well in advance, which will help the organizer better serve you [23]. The U.S. International Trade Administration organizes trade missions for several industries; a list of upcoming missions can be found at <https://www.export.gov/Trade-Missions>.

Price

Price is the amount of money that a customer gives up to acquire a given quantity of goods or services. In general, factors affecting pricing decisions are:

- **Customer reaction to pricing (price elasticity).** Price elasticity is the sensitivity of customers to a price change in terms of increases or decreases in the quantities that they will purchase. If demand is elastic, a small change in price will result in significant changes in demand; consequently, if demand is inelastic, changes in price have little impact on demand. Customer reaction depends, in part, on the availability of acceptable substitutes and the urgency of their need.
- **Impact of wholesalers and retailers.** Distribution channel entities (wholesalers and retailers) affect pricing decisions through the different roles they play in the warehousing, distribution, and selling process.
- **The competitive environment.** The degree of influence a company may have over pricing is affected by the competitive environment. In a market-controlled price environment, such as hardwood lumber or engineered wood products, competition is high, products from competing suppliers seem similar, and there is little control over pricing.
- **Other costs.** Product development, manufacturing, and distribution are additional costs that firms may incur.

Pricing Strategies

Pricing impacts sales volume, profits, cash flow, inventory levels, image, potential for government regulation, and market competitiveness. Therefore, it is important to establish pricing objectives and strategies to clarify the role of pricing in corporate strategy. For small to medium sized manufacturing firms, pricing objectives are typically profit-oriented, the goal of which is to achieve a target return on investment and maximize profits. Larger firms tend to be more sales-oriented when pricing their products. The goals of a sales-oriented pricing objective are to increase market share, maximize sales revenue, and generate traffic to the company [93].

Once pricing objectives have been established, a strategy is implemented to achieve them. There are a number of pricing strategies a company can adopt; however, the three basic strategies are skimming, market-based pricing, and penetration pricing. In a *skimming pricing* strategy, the objective is to achieve the highest possible profits in a short time. For this strategy to be successful, the target segment must be relatively insensitive to price and willing to pay a premium for a unique product. In *market-based pricing*, the company sets a price that is competitive in the target market and adjusts costs to achieve a desired level of profitability. A company adopting a *penetration pricing* strategy reduces the price

of its products, hoping to enter a new or existing market and generate large sales volumes to compensate for the low unit profit margins [94].

For commodity items (e.g., dimension lumber), market-based pricing is the main determinant of price. In some instances, companies can differentiate their products, either through service or quality, and create a greater perceived value for their product. With market-based pricing, a price leader is a firm, usually with significant market share, that tends to lead the industry in terms of pricing. Competitors will usually watch the price leader and change their prices accordingly. Some price leaders can be so dominant that they have the ability to “force” competitors out through their pricing practices.

Common Pricing Strategies Used by Wood Products Companies

- Wood products firms often use some form of mark-up method that is logical, applicable, and relatively simple to implement. However, using mark-up as a pricing strategy often leads to over- or underpricing. Ideally, consumers’ willingness to pay should be incorporated into the pricing strategy.
- The most successful wholesalers appear to achieve some differentiation from competition through non-price issues. Many wholesalers attempt and achieve little or no differential advantage and, consequently, compete solely on the basis of price. Many of these firms have not survived and others struggle.
- In the case of small wholesalers and manufacturers, pricing is frequently more of an art than a science. Manufacturing, purchasing, overhead, general, administrative, and selling costs are considered, alongside allowances for profit, but often in more of an intuitive fashion than as part of a formalized pricing methodology.
- A practical pricing approach is to establish prices using a well thought out, frequently updated methodology and then to use intuition in formalizing the prices that are quantitatively determined. Obviously, if you don’t manage prices, they will manage you through low margins or lost sales.
- Many commodity producers use the prices in the Weekly Hardwood Review or Random Lengths publications as starting points and try not to lower their prices.

Break-Even Analysis

A break-even analysis determines the number of units that need to be sold to balance sales revenue with the total cost of producing and selling an item. The break-even point, in units sold, is expressed as follows:

$$\text{Break- even point} = \frac{\text{Fixed costs}}{\text{Unit selling price} - \text{Unit variable cost}}$$

Although performing a break-even analysis in this fashion is oversimplified, it is a useful tool that can indicate whether or not a competitive price is attainable on a proposed new product. Break-even analysis can also be used to determine how

quickly a new product will become profitable and whether a cost reduction is needed on an existing product. To determine fixed and variable costs, examine your monthly banking statements for the past year. Fixed costs are incurred whether or not your operation is running and often include property taxes, salaried employees, insurance, and loan payments. Variable costs accumulate when your business is running, such as fuel expenses, raw material purchases, and supplies. Once you establish your break-even point, you can mark up prices to make a profit. Consider the scenario in which it costs \$150 to produce your product. If you want a 25% profit, the selling price should be \$200; that is, $\$150/(1.00-0.25)$.

Ultimately, you should strive to set prices at a point that customers are willing to pay for the value they perceive in the product; however, that value can be difficult to quantify. If the market is saturated with companies offering the same product or service, customers will typically choose the lowest price unless they perceive your product to be superior.

Pricing for International Markets

Pricing for international markets is different from domestic pricing because there are more factors to consider. For example, costs that do not exist in the domestic market must be accounted for when determining an export price, otherwise known as *price escalation* [1]. Consumer valuation and willingness to pay for a product are critical determinants of overseas export success, which makes it necessary to evaluate the demand and product acceptance within a foreign market.

Overseas competition can help to determine the best export pricing, with the decision being whether to price below, at, or above the competition. It is important to note that export pricing usually varies from domestic pricing owing to domestic brand equity, established domestic distribution channels, or heightened export costs, including shipping, duties, and others. Political and legal tendencies must also be considered, because many countries have anti-dumping laws that prohibit exporters from lowering prices below that of the domestic equivalent.

In addition to the basic pricing strategies explained earlier in this section, pricing decisions can also be made considering the prices that the company charges in its domestic markets. A company can set an export price lower, higher, or in line with domestic pricing or use differential pricing [20].

- **Export pricing lower than domestic.** When entering a market, exporters can use a lower price as an advantage to gain market share. However, as an exporter, it is important to recall that many countries have “anti-dumping” laws and to look preemptively for these when pricing.
- **Export price higher than domestic.** Costs of exporting, such as tariffs, taxes, and legal fees, can be high, in turn pushing export pricing higher than domestic

products. It should be noted that there is high risk associated with a high price in that the consumer base is not particularly receptive.

- **Export pricing on a par with domestic pricing.** This approach allows the exporter to maintain a safe price, eliminating a majority of the risk associated with prices above or below their standard prices. The price can change as the exporter gains experience within a foreign market.
- **Differential pricing.** This strategy consists of essentially charging different prices for each export market. Differential pricing only makes sense when different markets have different demand elasticities and when markets are effectively separated.

Factors That Affect Export Pricing

There are several factors in export pricing that are not usually part of domestic pricing decisions. Factors that should be considered when making export pricing decisions are outlined in this section; however, the following list is not intended to be a comprehensive account of all cost items to consider.

Terms of sale. This is probably the most important factor to consider for export pricing. The terms of sale define the responsibility of the buyer and seller in an export operation [94], or, simply, who pays what. The international terms of sale, or Incoterms (International Commercial Terms), distribute the costs and risks between the parties at different points in the exporting process, which will be explained further in Chapter 4. If the terms of sale are *Ex works* (EWX), the buyer accepts all the costs and risks of transporting the goods from the point of origin to the final destination; thus, the price quoted does not include any additional costs from exporting. On the other hand, in a *delivered duty paid* (DDP) deal, the seller assumes maximum responsibility and incurs all costs for transporting and delivering the goods at the buyer's facility, including import duties [94].

Terms of payment. Parties entering into an export agreement must negotiate and agree upon the payment and credit policies, known as terms of payment. There is a range of available payment terms, but advanced cash payments present the least risk to the seller. However, the most common practice is a *letter of credit* (see details in Chapter 5), by which a bank promises payment in exchange for the agreed documentation, usually the bill of lading [94]. Terms of payment affect price in a number of ways. For example, terms that require a longer time between sale and payment carry higher financing costs and higher risks from inflation and exchange rate effects. Factors that affect these negotiations are the amount to be paid, insurance, financing, competitors' pricing, and negotiation power of the buyer.

Tariffs, taxes, and fees. Tariffs, or duties, are flat rate charges incurred when importing or exporting a product to protect domestic share in a market or drive government revenue [1]. Tariffs can be expressed as a specific charge per unit of

product (e.g., 4.4 cents per kilogram of Argentinian beef imported to the U.S. [95]), a percentage of the value imported (e.g., 20% *ad valorem* for Canadian softwood lumber imported to the U.S. [96]), or a combination of the two [1]. Firms should also consider other factors, such as certificate fees, paperwork filing fees, and value-added taxes (VAT), a common consumption tax in place in more than 140 countries [97].

Product adaptation for foreign markets. Product adaptation, or product homologation, consists of all changes needed to make a product acceptable for foreign markets. These changes add to the cost of making a product for export markets.

Exchange rate effects. With the exception of sales between the 19 Eurozone countries, most export transactions involve an exchange rate, which can positively or negatively impact the profitability of an export transaction. For example, say a U.S. exporter sells merchandise to a Canadian importer with a 60-day payment of \$100,000 CAD. If, during that period, the Canadian dollar loses value against the U.S. dollar at a rate of 0.76 to 0.74, the U.S. exporter will receive \$74,000 instead of the \$76,000 it expected. To avoid risks from exchange rate fluctuations, a firm could require payment in U.S. dollars or use a forward contract, by which the exporter agrees to sell at an agreed exchange rate and delivery time. Exchange rates are discussed in greater depth in Chapter 5.

Inflation effects on exchange rates. Inflation directly affects exports through the effect on exchange rates — specifically, higher inflation leads to a weaker currency [1]. Deflation, or the reduction of general prices in an economy, puts pressure on manufacturers and their supply chains to reduce costs [1].

Transport, physical distribution, and insurance costs. Export costs can be quite high, often driving up product prices. The longer the supply chain, the more parties involved, each of which will demand a markup. In countries where transportation and warehousing infrastructure are not well developed, these costs tend to be higher. Logistics and its costs are covered extensively in Chapter 4.

Economic and political risk. When making decisions about export pricing, a company must consider the risks of entering foreign markets, such as economic downturns that would affect product demand or unfavorable political developments, which may affect legal and regulatory frameworks.

Other costs. There are many other factors to consider in determining the export price of a product, such as packaging and labeling, costs of additional documentation (permits, certificates), additional transportation costs (detention, demurrage, loading-unloading, storage), financing costs, and others [98].

Depending upon the country of destination, costs can be steep; thus, careful research is required and consultation with experts is advised.

To remain competitive in target foreign markets, firms must try to reduce costs, typically carried out using three basic strategies. The first and obvious option is to reduce production costs by adopting new technology, outsourcing part of the manufacturing, changing suppliers, changing raw material specifications, streamlining processes, and other cost-reduction strategies. A second option is to adopt supply chain management strategies to reduce distribution costs, which many times means shortening supply channels by reducing the number of intermediaries. Lastly, exporters can explore means to lower the duties applied to their products through reclassification into a lower tariff level or by modifying the product or its packaging so it can be put into a more favorable tariff classification. Another way to reclassify products for a lower tariff is to perform some of the assembly in the country of destination [1]. Experienced customs brokers can play an important role in advising the exporter on ways to reduce tariffs.

Calculating Export Price

There are two basic ways to calculate export pricing. Many companies entering foreign markets adopt a *cost-plus pricing* strategy, which typically involves totaling all costs and adding a mark-up for the desired profit margin. However, this method is often not optimal and leads to underpricing in strong markets or overpricing in weak markets [94]. As the company gains experience, it can be beneficial to adopt a market-oriented pricing strategy, considering the competition and the customer's willingness to pay. Table 12 shows an example of the cost-plus method.

Table 12. Example of export price calculation, using cost-plus method. Based on [99].

Price component	Amount	Totals
Ex works* price, manufacturers facility (wholesale)	\$1,000	
Transport to port	\$200	
Customs clearance	\$50	
Agent's commission (5%)	\$62	
FOB* price, port of origin		\$1,312
Sea shipping freight	\$300	
Sea shipping documentation, bill of lading (B/L)	\$20	
Marine insurance	\$20	
CIF* price, port of destination		\$1,652
Import duty (20% of CIF price)	\$330	
Custom clearance	\$80	
Delivery to customer's warehouse	\$150	
DDP* price, customer's warehouse		\$2,212

* International Commerce Terms (Incoterms), see detailed explanation in Chapter 4.

Marginal costing is another method to calculate export pricing, which usually produces more competitive prices to enter new markets. Using marginal costing, the exporter only considers the differential costs of manufacturing products for export. However, marginal costing only works when the firm has steady income from domestic sales [1]. For the marginal costing method (Table 13), prices are lower than what the company charges in the domestic market. While more competitive, this price can be subject of anti-dumping regulation.

Table 14 lists resources to calculate export pricing. It should be noted that these resources can provide a framework for thinking about various components of export pricing, and their outputs should not be taken as a precise calculation of export price.

Table 13. Export price calculation example using marginal costing method (based on [100]).

Total production capacity	120,000 units
Fixed costs	\$1,400,000
Domestic variable cost	\$80 per unit
Export variable cost*	\$120 per unit
Domestic sales	90,000 units
Break-even cost, domestic sales (total cost ÷ units sold)	$(\$1,400,000 + \$80 \times 90,000) \div 90,000 =$ \$96 per unit
Export sales	20,000 units
Break-even cost, export sales (total cost ÷ units sold)	$(\$1,400,000 + \$80 \times 90,000 + \$120 \times 20,000) \div 110,000 =$ \$100 per unit
Using marginal costing (total variable cost ÷ units sold)	$(\$80 \times 90,000 + \$120 \times 20,000) \div 110,000 =$ \$87 per unit

* Additional \$40 includes transportation, insurance, product adaptation, tariffs, and commissions.

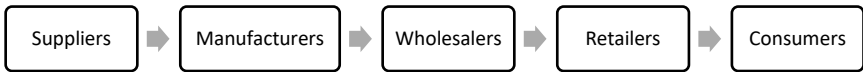
Table 14. Resources for export pricing calculation.

Author	Title/Link	Reference
Banco Santander	Export Price Calculator	[101]
Alpha Bank	Selling Price Calculator – Export	[102]
ExPortarYa	Calculate FOB Price	[103]

Placement

The final component of the marketing mix is placement, or distribution methods by which your product reaches the final consumer (see box on next page). Collectively, the distribution channel is an inter-organizational system made up of all agencies involved in moving things of value (products, services) from points of conception or production to points of consumption. The basic concepts of distribution are discussed in this section, and export logistics will be outlined further in Chapter 4.

The Distribution Channel



Examination of the distribution channel reveals how to most efficiently deliver a product to the intended customers. Because small to medium sized sawmills often deal in lower volumes than their larger competitors, they often have the option to distribute their product to one or more intermediaries along the distribution channel.

To choose the best distribution system, you must consider your target consumer and evaluate three aspects of distribution:

- **Feasibility.** What are the market needs and wants, capital requirements, reliability of the distribution channel, and speed of product delivery?
- **Desirability.** Is the system practical? Does it meet your business needs?
- **Profitability.** What costs are involved and can margins be maintained at each level of the distribution system to make a reasonable profit?

When choosing a distribution channel, it is important to understand the role of intermediaries. The main functions of intermediaries are to maintain contact with buyers, negotiate on price and delivery, establish contracts and agreements, transfer titles, provide credit/collection, service the product, provide inventory and storage, provide bulk-breaking service, and arrange transportation. The greater the number of intermediaries, the longer the distribution channel. The box below outlines the characteristics of “short” and “long” channels.

Short and Long Distribution Channels

Factor	Short Channel	Long Channel
Number of customers	Small	Large
Geographic concentration	High	Low
Order size	Large dollar value	Small dollar value
Complexity	High	Low
Product maintenance	High	Low

A number of factors, such as the number of customers, geographic concentration, or order size, should be considered when determining a short or long distribution channel. Typically, a longer distribution channel equates to lower profits, but it may make it easier to sell your product. A short channel typically requires more networking and work for the seller, which can translate to higher profits.

Companies interested in exporting need to gain a deeper understanding of the prevailing distribution channels for their products in the markets of destination, as they are often different in each country [1]. For example, in Japan, food products

are mostly sold in small retail stores (60%), while in the U.S., small stores account for only 36% of food sales. In Argentina, there is one retailer per 94 people, while in South Africa, retail is highly concentrated, with one retailer serving 417 people [1]. The distribution process is not simply transferrable into foreign markets; large American companies, like Walmart, have faced difficulties when expanding into some markets [104]. Factors that should be considered when selecting a channel configuration in both domestic and foreign markets include [1, 94]:

- Costs of developing and maintaining the channel.
- The level of control a company maintains over its distribution channel.
- The desired level of market reach and coverage or, in other words, how much of the target market the channel must cover. The longer the channel, the less control a company has over distribution.
- Distribution channel alignment with overall company strategy. The channel chosen needs to be consistent with the desired service level as well as with product type and value.
- Channel reliability and continuity. Relying on middlemen may be risky, especially when there is low brand loyalty downstream in the supply chain.

Careful consideration of the factors listed above needs to take place before a firm decides on a channel for export. Ideally, an exporter will have full control of the distribution process in the target market; however, this may not be cost-effective, especially for small to medium sized companies. In these cases, a company may explore the use of intermediaries.

Trade Intermediaries

Trade intermediaries are a vital aspect of international trade, particularly for small to medium sized firms that may not necessarily have the financial or human resources to invest in distribution infrastructure in foreign markets. Intermediaries are firms that facilitate export logistics in exchange for payment, often providing companies access to resources that would take them years to establish and grow [105]. Intermediaries take on the responsibility to find and maintain contact with buyers, negotiate on price and delivery, establish contracts and agreements, transfer titles, provide credit and/or collection, service the product, provide inventory and storage, provide bulk-breaking services, and arrange transportation [106]. There are a variety of intermediaries associated with exporting, including export agents and brokers, drop shippers, commission houses, resident buyers, export management companies, representatives, distributors, and global retailers. One major differentiation between various intermediaries is whether they take ownership of the product. A summary of the different types of trade intermediaries follows.

- **Export agents and brokers.** These trade intermediaries do not take ownership of goods and receive commission on product sales, essentially operating as an extension of the manufacturer by representing them with the end consumer [107, 108]. Agents and brokers operate under their own identity and do not perform promotion functions. However, agents may sometimes offer financial assistance, for example, assuming credit risk and guaranteeing payment, an arrangement known as *del credere* [20]. Agents and brokers work in the same country as the producer and are good alternatives for companies with relatively small export volumes and minimal export experience, as this approach involves little financial and management commitment. On the other hand, export agents and brokers do not have much control over the export process [1]. The major difference between agents and brokers is the length of the intermediary-manufacturer relationship, as agents usually establish a longer term agreement than brokers, who bring together one-time deals and do not represent the seller [107]. There are several brokerage firms in the U.S. specializing in lumber and other wood products.
- **Export drop shippers.** Also known as desk jobbers or cable merchants, export drop shippers do not physically acquire the product, but they do take ownership for a short period. Drop shippers receive orders from overseas buyers and, in turn, place orders with the producer, who ships the goods directly to the customer. The manufacturer's risk is relatively low, as drop shippers screen potential buyers and ensure payment reliability. However, drop shippers rarely facilitate a long-term presence in the target markets since they operate very quickly [20].
- **Export commission houses and resident buyers.** These intermediaries operate in the manufacturer's home country and are paid by the buyer, effectively serving as a purchasing agent. They also act as a domestic buyer, evaluating different suppliers and making decisions on price and quality. This is a low-risk exporting strategy with prompt payment; however, there is little or no control over product marketing in the target markets. The most prominent difference between commission houses and resident buyers is that the latter are employed by the customers on a semi-permanent basis, providing potential for long-term relationships with buyers in foreign markets [20].
- **Export management companies (EMCs).** EMCs are often used by firms that export small volumes and act as an extension of the marketing department of small capacity firms, often carrying out promotion, handling, distribution, credit arrangements, and other tasks [1]. EMCs conduct business in the name of the manufacturer, so from the foreign buyer's perspective, an EMC and the manufacturer are the same company. When using EMCs, the financial and personal investment risk is relatively small; however, they have a rather short-term focus and rarely facilitate long-term presence in target markets.
- **Trading companies.** These intermediaries have a long history of enabling trade between countries by buying and storing goods, negotiating terms of sale, financing, managing logistics, and distributing and selling products. They act as both exporters and importers, and in countries with complex distribution

channels, they are the most appealing alternative for firms planning to enter those markets [1]. Examples of trading companies are EmitBrasil (Brazil), which trades construction machinery; Bahrawi (Saudi Arabia), which specializes in food; and Japan's *sogo soshas*, a generic term for trading companies operating in Japan that manage more than half of national trade [109]. Examples of trading companies specializing in forest products are Richmond International Forest Products, which trades mostly wood-based panels and lumber [110], and International Forest Products LLC, which trades pulp and paper products, logs, lumber, and panel products [111].

- **U.S. export trading companies.** These can be formed to decrease risk and offer economies of scale, thanks to the Export Trading Company Act (ETCA) [112], which facilitates antitrust preclearance for companies that want to start joint export ventures. For example, the Wood Machinery Manufacturers of America was issued an Export Trade Certificate, enabling its members to collaborate on international projects normally hindered by antitrust regulations [113].
- **Representatives and distributors.** These intermediaries are located in the foreign markets targeted by the exporting firm. This approach requires more exporter involvement; however, it provides more control and closer contact with the overseas customers [1].
- **Global retailers.** These intermediaries include both brick-and-mortar stores and online sales with international reach [107]. Retailers purchase goods directly from the manufacturer or through other intermediaries and sell to the end consumers in their target markets [107, 108]. Global retailers offer an attractive entry mode for many U.S. producers that do not have significant experience exporting.

The choice of which type of trade intermediary a firm may pursue depends on several factors, such as the stage of international business evolution, resources available, export volumes, risk tolerance, and desired involvement in an international marketing operation. The utilization of an intermediary can often be seen as inevitable for small to medium sized exporting firms, as firms often lack the scale and resources to engage in direct export, open foreign sales branches or warehousing facilities, or hire sales personnel in the target market.

The Growing Importance of E-Commerce in International Sales

The sale of goods and services via the internet, or e-commerce, has experienced exponential growth. First-quarter e-commerce sales in the U.S. have grown from just under 4% of total sales in 2009 to over 10% in 2019 [114]. The growth of e-commerce at a global level has been higher than in the U.S., with e-commerce sales growing at a rate of 18% globally versus 15% in the U.S. in 2018 compared with the previous year [115]. In the forest products industry, internet adoption for marketing functions is generally limited to marketing and advertising, with relatively low adoption as an e-commerce tool [116, 117].

The internet has revolutionized the way transactions are conducted, and e-commerce, in particular, has allowed companies to shorten their supply chains and sell directly to consumers. However, the benefits of e-commerce go beyond sales transactions to include the following: *supply chain transparency*, since companies and customers are able to monitor the status of activities spanning the supply chain, from ordering to delivery; *improved customer relationship management*, allowing companies to communicate directly with customers and receive feedback from reviews or real-time sales monitoring; *supply chain cost reduction*, such as removing intermediate steps in the distribution process and lowering the amount of inventory needed to maintain a desired level of service; and *improved customer satisfaction*, resulting from increased transparency, efficiency, and communication, as well as better overall service [118]. The e-Commerce Export Resource Center is an initiative by the U.S. Department of Commerce’s International Trade Administration to support cross-border e-commerce sales channels [119]. There is a wealth of information and educational materials to help establish an e-commerce operation for exporting companies at <https://www.trade.gov/ecommerce>.

The internet has been an important enabler of “mass customization,” allowing customers to “design” their products and place orders online. Dell was the first company to offer online PC configuration. Today, a multitude of brands offer product customization at prices close to those of stock items (Figure 7).

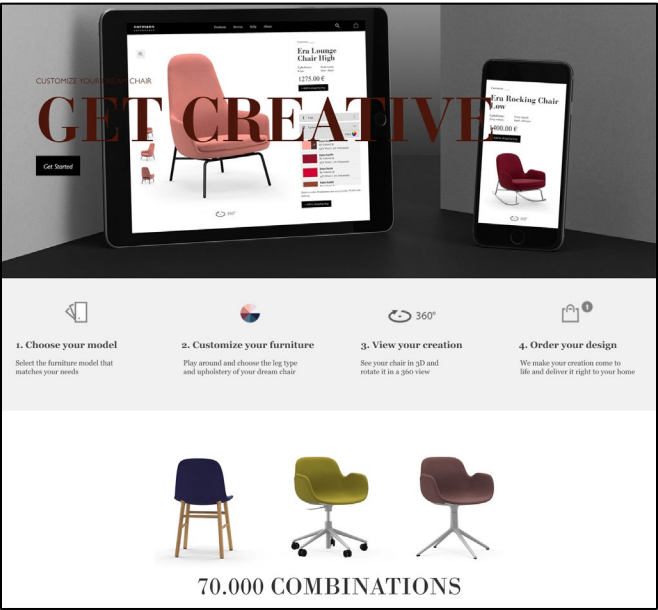


Figure 7. The internet and modern manufacturing technology allow companies to offer customized products on an industrial scale with competitive prices and lead times [120].

Market Research

If you are entering the forest products market or are looking to expand operations, you need to conduct research on current and future factors that may affect the market you are interested in. Market research is the process of systematically gathering, recording, and analyzing data related to the marketing of goods and services. Initially, market research can be a daunting task, as much of the easily accessed market information comes from Wall Street and focuses primarily on markets controlled by larger corporations. However, simple market research methods for small to medium sized forest products companies are introduced in this chapter to help identify trends that can provide new opportunities for your business.

Firms that can quickly identify and react to market trends tend to be leaders in their field, so focusing on your customers and competitors can provide a good foundation for market research. Other sources of information to quantify market trends can include subscription-based market reports, trade magazines, trade associations, academic institutions, and state extension specialists.

Ultimately, the importance of well-conducted market research cannot be understated, as it enables your company to react to market changes faster, find new product ideas, service your customers better, and develop long-term selling opportunities.

Talk to Customers

An easy way to start doing market research is to talk to your current customers. They can provide information on industry-wide product line changes and insights into the future of the market. Often, consumer attitudes toward the future will have a direct effect on your business, and this information can provide you with some intuition into whether to expand or change the current markets that you service.

The actions of your customers can be a good benchmark to how stable a specific market is. Increased purchasing of raw materials and equipment can imply that the market has potential for growth. Employee layoffs and sudden changes in management can suggest that they may fear the future of the market and are trying to reduce overhead costs.

Watch Competitors

To some degree, watching the actions of your competitors can provide insight into how healthy a market is, so take the time to examine if your competitors are

introducing or eliminating products. If advertisements from your competitors are appearing more frequently in newspapers and trade publications, your competitors may know that the market is healthy and there is potential for new customers.

Read Trade Publications

The problem with merely watching your customers or competitors is that there may be unseen factors driving their actions. Fortunately, there are a growing number of sources that can provide quantitative information on forest products markets, such as Hardwood Review [121], Hardwood Market Report [122], Random Lengths [123], Crow's Market & Price Service, Lumber + Building Materials Daily [124], and Forest2Market [125], that specifically provide pricing information for the solid wood markets. These publications also routinely provide market forecasts for different segments related to the wood industry alongside other trade publications, such as Northern Logger and Timber Processor [126], Independent Sawmill and Woodlot Management [127], FDMC [128], Closet & Organized Storage [129], and Window & Door [130]. Editorials and letters from readers in trade publications also offer some insight into what others think of various markets.

Many trade associations publish newsletters and membership directories that can provide information into what other companies are doing and where they are located. Trade association newsletters often have market outlook sections along with important topics, such as legislative issues that pertain to their members. While membership into trade associations can be pricey, it does provide networking options. National, regional, and state trade associations and market publications are listed in Appendix A.

Access Information From Academic Institutions

Another source of information for market research is colleges and universities that have wood science programs or Cooperative Extension programs in the areas of forestry and forest products. Currently, there are 34 academic institutions identified by the Society of Wood Science and Technology as having programs in the area of wood science or forest products (see list at <https://www.swst.org>). Some academic institutions have research centers that focus primarily on providing market research to forest products companies, where access may be free or subscription based. Developing contacts at academic institutions can often help recruit qualified candidates to work for your operation. Appendix A contains a list of centers and institutes that support the forest products industry.

Contact Government Agencies

Federal and state government agencies have specialists on staff to assist with forest products marketing and utilization. Contact information for the U.S. Forest Service, as well as wood products extension specialists, by state, are listed in Appendix A.

Leverage Online Market Research Capabilities

As with other aspects of marketing, the internet provides cost-effective tools to conduct market research in foreign markets. Online survey platforms, such as Google Forms [131], Qualtrics [132], and Survey Monkey [133], allow firms to develop professional-looking questionnaires, manage survey distribution, and conduct data analysis. Tools, like Google Analytics [134] provide detailed information on website traffic, including user location, visits, and other information.

International Market Research

Market research for foreign markets presents added complexity for firms interested in pursuing international sales. Information needs to be communicated between different cultures, and research tools that may be easy to implement in one country may be unfeasible in another. These factors result in higher levels of uncertainty for foreign market research. Exporters should strive to gather general information regarding target markets, societal and economic trends that may impact exporting prospects, and required information for marketing mix decisions [1]. Potential sources for general country information can be found in the Central Intelligence Agency's World Factbook [135], economic and trade information can be accessed using The United Nations' Conference on Trade and Development resources [136], "country risk" information is available using the Euromoney Country Risk database [137], and commercial guides for more than 125 countries can be viewed on the U.S. Department of Commerce website [138].

Market research should follow a structured approach. First, market research objectives should be clearly stated. Second, the firm must select the sources of the data that will allow it to meet the set objectives, as well as gather the information. Third, the firm should analyze the data collected and communicate the results to those making the decisions.

Market Customization and Niche Marketing

Developments in communications, strong domestic and international competition, and more sophisticated customers have ended the era of mass production and mass marketing. There is no longer a "one size fits all" marketing approach, and markets are moving to mass customization, or producing goods that meet

customers’ unique needs at an industrial scale and at a reasonable cost. Consumers prefer products tailored to their specific needs, and business success will increasingly rely on the ability to (1) identify market niches that fit its core competencies, (2) successfully target these markets with promotion and the right distribution channels, and (3) position the company’s brand in a way that drives purchase behavior. This process is known as market customization (Figure 8).

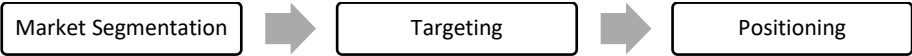


Figure 8. Market customization process.

One market customization strategy that can benefit small or emerging businesses is niche marketing, which is a method for reducing competition and gaining more control over product prices. With less competition, demand for a niche market product is less elastic, and, as such, the producer has more flexibility in setting price. If the producer raises prices, there will be a less-than-proportional fall in the quantity demanded, and total revenue will increase [139]. We see this strategy successfully applied in the niche beer market, where thousands of microbreweries have sprung up across the country with specialty beers aimed at specific tastes.

The ideal niche market displays five characteristics:

- **Profitability.** The niche has adequate size and purchasing power to be profitable.
- **Growth.** There is reasonable potential for market growth.
- **Limited competition.** There is no competition from major players.
- **Competitive advantage.** The producer has the required resources, skills, and location to serve the market effectively, as well as better than its competitors.
- **Goodwill.** The producer can build enough loyalty among customers to defend and survive competition.

Although profitable niche markets may be discovered by accident, it is also possible for producers to systematically find and develop niche opportunities. The following steps form the framework for deciding what to sell, where to sell, to whom to sell, and at what price to sell, so as to take advantage of a profitable niche markets.

1. **Analyze the existing market.** Find out who the customers are, who the current players or competitors are, what products or services are being offered, what prices are being charged, and what distribution channels are used to deliver products to customers.
2. **Identify neglected or underserved market segments.** Determine if any segments in the existing market are not currently served by businesses. Information may be obtained through personal observations, interviews with

current market participants, consultants, trade publications, government publications, market information, newspapers, or others.

3. **Evaluate your strengths in serving identified segments.** Determine the resources and skills needed to be effective in satisfying the needs of underserved or neglected market segments. Consider the raw material, equipment, skill, financial, and managerial resources required to be competitive, as well as marketing requirements, such as sales force size and distribution channel intermediaries. In addition, determine the competition or rivalry, if any, to be expected in the market segments.
4. **Select the niche in which you have a competitive advantage.** Choose one or more market segments based on your strength, skills, location, and resources. Niche marketing can be risky, as it may be temporary or attacked by competitors. Specializing in more than one niche may lower risk and increase the chances of success.
5. **Develop a marketing program to meet the needs of this market.** For each niche chosen, determine the appropriate or best product, price, promotion, and distribution system to serve customers efficiently and profitably. Superior service can help build and retain customer loyalty.

Success in niche markets will not go unnoticed. Competitors will be attracted, each trying to make a better product, supply it at a lower price, or provide better service than the present niche occupant. Niche marketers should develop a close relationship with customers to better understand their requirements, find ways to help increase efficiencies, and be responsive to their needs. Continued attention to these factors will help guarantee lasting success in a niche market and help the producer avoid being tied to commodity markets.

Successful Niche Market Strategy Example

A family-owned business in Minneapolis, Minnesota, uses salvaged logs from trees in the “urban forest” (see Chapter 6) to make items such as retail accessories, custom furniture, and lumber. The company marks each log with the zip code of the area from which the tree came and places it on the finished product. This company has found a niche of customers who want to buy local, sustainable products.

Other examples of niche forest products include the following:

- Reclaimed wood from old buildings
- Athletic flooring systems
- Wooden golf clubs
- Proprietary grades for hardwood lumber
- Window grilles
- Barrel staves

Online and Digital Marketing

Online marketing has grown exponentially, and it now influences half of retail sales. This is not hard to believe, particularly if one considers that more than 80% of U.S.

residents own a smartphone with internet access [140]. Global spending on digital marketing is close to \$100 billion [141], and about 40% of the global population has access to the internet. From advertising to retail sales to product review websites, the internet has revolutionized the way companies conduct business. The internet is an especially powerful tool for small and starting businesses, as it helps to “level the playing field” with other big players in the market. However, there are different components of an online marketing presence, and each business must evaluate which ones are relevant and appropriate to its unique characteristics.

Websites

It is very unusual today to find a company that does not have some online presence. The purpose of building a website can range from promoting the company’s brand, getting customer feedback, and providing product information, to using it as another (or the only) channel of distribution through online sales. However, while creating a website is relatively easy, maintaining and growing traffic to it is more challenging. A website must provide value to customers in the form of detailed product information, links to other resources, feedback mechanisms, and more. Some kitchen cabinet companies, for example, provide visitors with online tools that allow them to “design” their kitchen, with great visualization tools.

Email Marketing

Email is a growing marketing tool that allows companies to send personalized messages to potential and current customers. The most effective way to reach customers using email is by allowing them to opt-in to periodic messages with promotions, coupons, or, simply, useful information. Potential customers fill out a form to provide consent and other useful information that facilitates the company to better tailor its email marketing efforts.

Online Promotions and Ads

As more people use the internet, companies are spending more on online advertising. For example, spending in the U.S. was projected to reach \$37.6 billion in 2019, almost double its level in 2014 [142]. Online advertisements can consist of (1) search ads, which appear when someone makes a query using a search engine (e.g., Google), (2) sponsorships, where companies sponsor content in specific websites, and (3) mobile marketing, which includes messages and promotions delivered to customer cellphones, often using apps. According to eMarketer, mobile advertising was expected to reach 10% of all spending in media advertising [143]. A kitchen cabinet manufacturer, for example, provides a free smartphone application through its website for users to find recipe ingredient substitutes (e.g., substitute plain yogurt for buttermilk). The app’s appearance reflects the company’s brand and contains links to the company website.

Social Media

An increasing number of companies are harnessing the power of social media networks to generate word of mouth and increase brand awareness (see box on next page). Companies interested in leveraging social media marketing can join an existing online community or create their own. Participating in existing communities has its challenges, like the inability to control the environment or the need to earn your presence by providing some value to the audience.

Using Social Networks to Market Your Product

The number of people participating in online social networks is growing at an exponential rate. As of 2019, Facebook had close to 2.4 billion monthly active users [144], while Twitter had 126 million daily active users [145]. Professional networks such as LinkedIn or Research Gate are also thriving. Some companies consider active participation in social media as an alternative to traditional advertising, but social media can serve to amplify traditional advertising rather than replace it. A cleverly planned and executed social media strategy can improve awareness and help to build a brand around a firm’s reputation and products. It is important to note that, contrary to popular belief, social media marketing is not free, as there are costs and time associated with creating content, as well as potential costs from paying consultants to help build and implement the social media strategy. No matter what social media platform you use, implementing the following recommendations can help in achieving a successful social media strategy.

- Monitor conversations related to the product, company, or competitors.
- Identify influential individuals and offer incentives to spread positive word of mouth.
- Use social media to spread the word about offers, sales, or events.
- Use social media to invite potential customers to help “shape” an offer or design.

Wood products industries have been slow to adopt social media as a marketing tool. A survey of 600 forest products firms conducted by the market intelligence firm Random Lengths concluded that more than half do not use social media and do not have plans to do so in the near future [146]. Predictably, companies dealing directly with end users showed higher adoption rates, whereas mills showed a very low adoption. Reasoning for this lack of acceptance included skepticism about return on investment, fear of exposing critical information or, simply, lack of time.

Communicating the Environmental Attributes of Wood Products

Awareness of environmental sustainability is growing among American consumers, as can be seen in the growth of “eco-labels” in the last decade. According to a Green Brands Survey, 73% of U.S. consumers say it is very important or somewhat important to buy from green companies [147]. A survey of manufacturers found that 81% of participants consider it very important or somewhat important to

produce environmentally sustainable products, and, when applicable, companies want to show their environmental credentials by promoting their products and processes as environmentally friendly [148]. To communicate the environmental attributes of wood (based on [149, 150]), consider these recommendations:

- Connect your environmental message with a moral or emotional point, such as preserving the planet for our children.
- Use personal health and planet preservation issues as leverage points, such as endangered species preservation.
- Use animals, natural landscapes, and shades of green in your advertisements.
- Use a green label. Certify your operation with a recognized, third-party certification organization, such as the Forest Stewardship Council (FSC) or Sustainable Forestry Initiative (SFI), and use the logo in your advertising. Some industry associations have their own green labeling program, such as the Kitchen Cabinet Manufacturers Association’s Environmental Stewardship Program [151].
- Avoid making misleading environmental claims (see box below).

Green Advertising or Greenwashing?

Greenwashing is “*the business practice of misleading consumers through ‘green’ marketing about the environmental benefits of using a product or service when no such benefits really exist*” [152]. A study by TerraChoice found that of over a thousand consumer products surveyed, almost all were guilty of greenwashing [153]. According to the same company, the “six sins of greenwashing” are, in order of frequency: (1) hidden trade-off, or basing a claim solely on one attribute and disregarding others; (2) providing no proof, a claim that cannot be supported by a reliable third party or by accessible information; (3) vagueness, a claim so broadly defined that consumers may misinterpret it; (4) irrelevance, a claim that is truthful but unimportant; (5) lesser of two evils, claims that may be true within a category of products but not reflective of the category as a whole; and (6) fibbing, which is simply making a false claim [153].

The Federal Trade Commission (FTC) prohibits deceptive messaging in advertising, including deceptive environmental claims. For more information regarding the rules and regulations of green advertising, visit <https://www.ftc.gov/tips-advice/business-center/advertising-and-marketing/environmental-marketing>. To test your understanding of this concept, can you identify the problems with the following statements from the FTC’s website?

- “When you build with [BRAND] recycled plastic lumber, you demonstrate your commitment to the environment and sustainable living. [BRAND] recycled plastic lumber products are 100 percent plastic and generally contain over 90 percent recycled high density polyethylene (ReHDPE) material.”
- “[BRAND] paper plates are made from 100% paper, a renewable natural resource. Our product is SFI certified, which means it is renewable, recyclable, and compostable.”
- From a printed advertisement for a window [BRAND]: “50 percent savings guaranteed. Customer testimony: Our energy use dropped so much after installing your windows that our [UTILITY] thought our meter was broken!”

Research has repeatedly shown that products made of wood outperform alternative materials (see box on next page); however, the forest products industry has done an inadequate job of communicating these attributes to the public.

What Science Says About the Environmental Performance of Wood Products

Which of these alternatives produces less of an environmental impact: engineered bamboo flooring vs. solid oak flooring, steel studs vs. softwood studs, a home made of concrete vs. a wood-frame house? Answering these questions is not easy. Results from a study conducted on flooring materials denotes clearly superior performance by wood products through an analysis of each product, from raw material extraction to disposal or recycling (see table below). Life Cycle Assessment (LCA) is a standardized approach to systematically accounting for the flows of materials and energy of a product associated with its life cycle. The environmental impacts are grouped into categories, such as global warming potential, eutrophication potential, acidification potential, and ozone depletion potential.

The following table is an example of the results from a study that compared different flooring materials, including solid pine. Results show that solid wood has the best environmental performance in seven of the nine impact categories.

Impact category (all units per m ² of flooring)	Linoleum	Vinyl	Solid wood
Service life (years)	25	29	40*
Energy consumption (MJ equiv.)	13	29	-64*
Global warming potential (g CO ₂ equiv.)	1,600	4,174	424*
Acidification potential (g SO ₂ equiv.)	13*	31	24
Eutrophication potential (g. phosphate equiv.)	1.7	1.3*	4.2
Ozone creating potential (g. ethene)	2.5	0.9	0*
Ash waste (g)	555	801	198*
Sector specific wastes (g)	17.2	197	0*
Hazardous waste (g)	236	212	0*
Dust generated (g)	34.5	6.8	1.2*

* Denotes best performance.

Source: [154] as cited by [155]

Additional information regarding the environmental performance of wood products using LCA can be accessed using the sources below.

- Consortium for Research on Renewable Industrial Materials (CORRIM): <https://corrим.org>
- The American Hardwood Export Council (AHEC): <https://www.americanhardwood.org>
- WoodWorks: <https://www.woodworks.org/why-wood>
- Dovetail Partners Inc.: <https://www.dovetailinc.org/index.php>

Chapter Questions

1. Who is your target international customer?
2. List five reasons why your international customers should purchase your product over others in the market.
3. Identify three methods to communicate with your target international customer.
4. Draft an advertisement for your company for a foreign market.
5. Where is information available on your international market and customer?
6. What will be your promotional message for your international customer?
7. How will you physically get your product to your international market?
8. How will you calculate the price of your product?
9. Develop a “Total Product Diagram” for your company/product.

Acknowledgment

This chapter is based in part on work published in Espinoza, O.; Smith, R. 2015. Business Management Practices for Small to Medium Sized Forest Products Firms. Blacksburg, VA: Virginia Polytechnic Institute and State University. 142 p. [106].

Chapter 4: Logistics in Export Operations

Logistics, or the movement of goods from producer to consumer, can be the most challenging aspect of an exporting operation, typically involving a number of transport methods, longer transit times than in domestic shipping, language barriers, currency differences, variable regulatory requirements, and economic risks. Logistics involves identifying effective shipping methods and routes, arranging transportation, loading goods, preparing documentation, and monitoring shipment status up until delivery. Logistics decisions can be overwhelming for a small to medium sized company. This chapter outlines effective logistics management practices, beginning with an explanation of the international commerce terms that affect both costs and risk incurred by the exporter.

International Commerce Terms (Incoterms®)

Before engaging in international trade, it is essential to understand the role of International Commercial Terms, known as Incoterms®, which define the terms of trade for the sale of goods, including costs and responsibilities. Incoterms are published and maintained by the International Chamber of Commerce (ICC), which works to promote trade based on free and fair competition, and has over 6 million members worldwide [156]. The most recently revised Incoterms were published in 2010, and they were the eighth revision to the original 1936 publication [20].

Put simply, Incoterms “*define the geographical point where the risks and costs of the exporter and importer begin and end*” [23]. They help to clearly define the responsibilities of the parties involved in international trade, eliminating confusion and providing a common language. It is important to note that Incoterms themselves are not definitively upheld by the courts, but once the supplier and buyer agree and sign a legally binding document, they become enforceable [20]. Figure 9 presents information on points of exchange, where responsibility and ownership transfer between suppliers and buyers in international commerce. It is important to understand the topics included in Incoterms, such as transportation, insurance, and ownership. Transportation of goods happens by truck, train, sea, air, or a combination, with each mode of transportation having advantages and disadvantages, explained later in this chapter. Insurance is important to mitigate much of the risk involved, such as damages or loss of the product. Finally, ownership can be defined as the legal holder of a product, assuming all risks and responsibility.

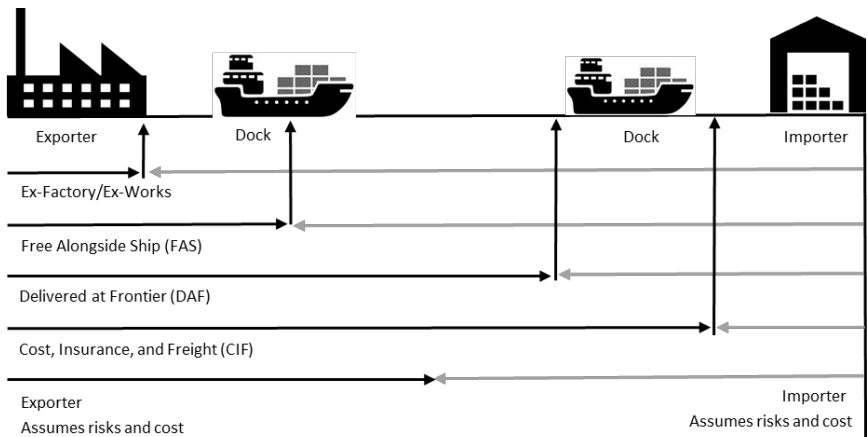


Figure 9. Responsibility exchange between supplier and buyer as derived from [23].

The internationally accepted Incoterms are defined below. Terms marked with an asterisk (*) are relevant only for sea and inland waterway transport; all others are applicable for any mode of transportation.

Ex Works (EXW). Ex Works or Ex-Factory indicates the products are transferred to the buyer at the supplier's facilities or another place, and the buyer takes responsibility for arranging transportation and insurance as well as clearing the goods for export [23].

Free Alongside Ship (FAS).* The supplier quotes both the products and the cost of delivery up to and/or alongside a ship at a defined port for export, where the buyer assumes responsibility of the product [20, 23].

Free On Board (FOB).* The supplier delivers and loads the product onto a vessel at a defined location or port for export, and from then on, the buyer incurs cost [20].

Free Carrier (FCA). The seller delivers the product to a buyer-designated carrier at a clearly defined location, passing responsibility from supplier to buyer.

Carriage Paid To (CPT). The goods are delivered to a seller-designated carrier at an agreed location, and the seller contracts and pays for transit costs to a final destination.

Carriage and Insurance Paid To (CIP). Similar to CPT, CIP requires the supplier to also contract and pay for minimum insurance during transportation.

Cost and Freight (CFR).* An overseas port is agreed upon, and the supplier incurs cost up until the product is loaded for export, passing responsibility to the buyer by giving custody to the carrier. The buyer must contract and pay transportation and insurance costs [20].

Cost, Insurance, and Freight (CIF).* CFR and CIF are identical, except that with CIF the supplier maintains all cost of transport to the destination port, including product insurance.

Delivered at Place (DAP). The supplier is responsible for transportation, risks, and delivery to a defined location [157].

Delivered Duty Paid (DDP). The supplier retains responsibility until the product has arrived at the specified location, cleared customs, and duties have been paid.

Delivered at Terminal (DAT). The seller is responsible for the transport and unloading of the product into a warehouse or other such terminal at a location defined by the buyer.

Incoterms are instrumental in managing trade relationships between companies by eliminating unnecessary frustration and clearly defining the terms of trade. Suppliers and buyers decide which trade term to use depending upon the availability of insurance coverage, access to cost information, whether domestic or foreign carriers will be used, need for cash, governmental requirements, and currency conversion rates [20].

Transport Alternatives in International Trade

Transportation represents a significant component of exporting costs and lead times. Accounting for bulk weight and crate dimensions, transportation can represent up to 30% of overall product sales price [18]. Forest products are typically transported by a combination of road, rail, or sea shipping; however, high-value products or expedited orders may be shipped by air (Figure 10). The relative cost of various modes of transportation, from most to least cost effective, are ocean, rail, truck, and air [21]. The preferred mode of transportation is sometimes determined by geography, for example, land transport from the U.S. to Canada or ocean freight from the U.S. to Europe. This section of the chapter explains the major characteristics of each form of transportation.



Figure 10. Loading lumber on to a ship (left) and truck (right). Photo credits: Robert Smith.

Land Transportation

Land transport is used to ship a large percentage of forest products domestically and internationally. Approximately 81% and 19% of domestic ton-mile transport of wood and paper products were moved in 2017 by truck and rail, respectively [18, 158]. Road transportation, otherwise known as highway, truck, or over-the-road (OTR), is generally more expensive than rail transport; however, it allows for high efficiency, flexibility, and speed. One appealing characteristic of road transportation is its ability to offer door-to-door service without loading or unloading between destinations [159]. Rail cargo is typically transported to a rail yard by truck; for this reason, rail transportation is described as “terminal-to-terminal” rather than “door-to-door” service [159]. Land transportation is often a vital component of intermodal transportation, as will be detailed later in this section.

Truck

The increasing adoption of supply chain management practices like Just in Time, which promotes small, frequent shipments, has contributed to the prevalence of road shipment. However, for shipments over 100,000 pounds, truck transportation is not economically viable, and rail is preferable, offering efficiency in large volumes with ease of loading for flat cars and product protection [18, 159].

There are a variety of vehicle options available for road transport, which can be carried out using *full truckload* (FTL or TL) or *less than truckload* (LTL) shipping. FTL is the best option for shipments of more than 15,000 pounds, or more than 10 standard-size pallets of freight (more about pallets later in this chapter). For LTL, multiple senders share space on the same truck, making it an attractive option for small to medium sized firms that ship small orders. In general, LTL shipments decrease expenses, but there is a higher risk of damage owing to additional handling and less reliable lead times when compared with FTL.

Rail

Rail transportation typically relies on manifest trains, or those that move different types of rail cars carrying various freight, including solids, liquids, or gases [160, 161] (Figure 11). The cargo on these trains is typically moved for several companies at once, offering economically advantageous solutions for many firms. Rail freight is moved in a number of railcars, including (1) boxcars, which serve as general purpose containers; (2) flatcars, which are often used for finished machinery, logs, or other industrial products; (3) hopper cars or bulk utility cars loaded from the top and unloaded from the bottom using gravity; (4) gondola cars, which are open on the top and used for products like coal or gravel; and (5) tank cars designed to carry liquids or gases [160].

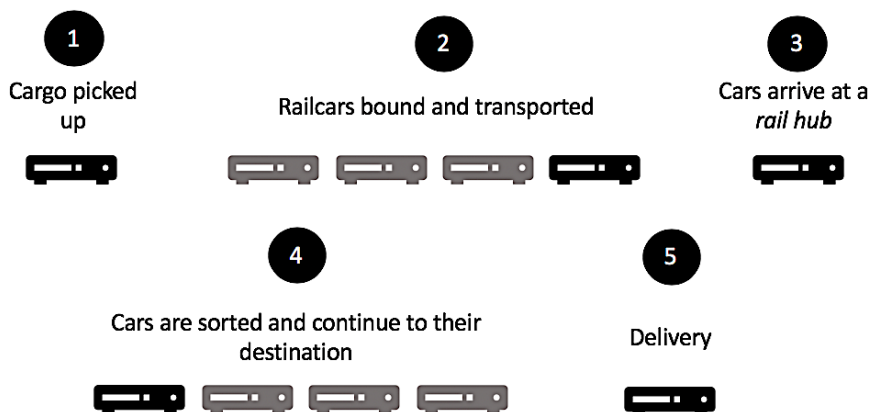


Figure 11. Rail transportation processes start to finish [161].

Access to railheads can be a barrier for small and medium sized businesses looking to export overseas. Large companies often leverage export volumes to access high capacity resources, but small and medium sized firms are limited in their ability to do so. Rail transportation can result in long wait times owing to bottlenecks in container unloading or travel, adding to transportation costs, which account for a significant portion of overall product price [162]. A cost-benefit analysis must be done regarding the best form of transportation overseas, particularly considering the differences between truck and rail for land transportation.

Ocean Transportation

Ocean transport is the most cost-effective and primary mode of international forest products transportation, especially considering the weight-to-value ratio [18]. However, ocean freight can be slow or delayed and subject to higher damage, insurance, and packaging rates compared with air and land freight [19]. It should be noted that ocean transportation is heavily reliant on weather patterns and often requires the use of a combination of modes of transportation owing to limited accessibility [159].

There are three options for contracting ocean transport: conference lines, independent lines, and tramp vessels. A *conference line* consists of several carriers joined together to establish a common rate and conditions. An *independent line* accepts all business, as long as there is space, and is usually less expensive than conference lines. Finally, *tramp vessels* deal with bulk cargo transit [23].

There are two types of maritime cargo: *general cargo*, which is carried in defined units, and *bulk cargo*, which is loose. General cargo, in turn, can be categorized in

break bulk (drums, bags, pallets, or boxes), neo bulk (bundles of lumber, rolls of paper, steel, vehicles), and containerized cargo (20' or 40' containers).

It should be noted that, similar to less than truckload (LTL) shipping, it is possible to ship less than an ocean freight container (LCL, or break-bulk shipment). Some companies offer consolidation services, in which they combine individual LCL cargos from several companies to fill a container. Once the container arrives at its destination, it is unpacked into the individual shipments. LCL shipments are priced based on volume and cost less than full container shipments (FCL), take longer due to the consolidation processes, and require meticulous packing and marking.

Globally, most of the top 25 ports (measured by throughput, in 20' container equivalents) are located in Asia, with only three in the U.S. [163]. Top U.S. container ports are Los Angeles-Long Beach, New York-New Jersey, Savannah, and Seattle-Tacoma. There has been growing consolidation in the ocean shipping industry, with more than 60% of market share held by six companies. It is forecasted that three-quarters of the global containership fleet will be in the hands of seven liner companies by 2021, compared with 37% in 2005 [164]. The first step to beginning an ocean shipping venture would be to contact an international freight forwarder (explained later in this chapter) and explore the available options.

Air Transportation

Use of air cargo shipping is growing as efficiency has improved and costs have decreased [23]. Air transportation allows for very short transit times, which are commonly used for premium or emergency services [159]. Increasing shipment sizes have helped to reduce operating cost per ton-mile; however, overall cost is still rather variable due to both distance and shipment size [159].

Intermodal Transportation

Intermodal transportation is commonly used for international trade of forest products and can be defined as *“the movement of cargo in shipping containers or trailers by more than one mode of transportation”* [165]. Intermodal transportation is usually carried out in standardized containers, which facilitates the transfer between modes of transportation [18]. The mode of transportation can affect packaging, handling, inventory, and delivery costs, insurance rates, and warehousing times [19].

Table 15 ranks the different modes of transportation. It should be noted that ocean shipping is the least costly, but its performance on all other factors is low.

Table 15. Transportation analysis, ranking from best (1) to worst (4) performance [18].

Determinants	Rail	Truck	Ocean	Air
Cost	2	3	1	4
Transit Time	3	2	4	1
Reliability	2	1	4	3
Capability	1	2	4	3
Accessibility	2	1	4	3
Security	3	2	4	1

Because a small to medium sized forest products firm likely lacks the means to command its own transportation fleet, it will need to look to a third-party logistics provider (3PL) to manage the firm’s transportation. A 3PL might facilitate services throughout all or part of the supply chain (see following section) [38].

Third-Party Logistics Providers (3PLs)

When considering export operations, arranging and coordinating logistics can be complex, particularly for small to medium sized firms, which do not typically have the time, personnel, or knowledge needed to optimize efficiency. Third-party logistics providers, often referred to as 3PLs, offer contracted logistics services to their clients, like freight forwarding, packaging, transportation, and inventory management [159, 162]. Because these firms offer a wide range of services, they are seen as a one-stop shop, allowing smaller firms to focus on their core business and ensuring effective handling or transportation of their products [94, 159].

Generally, 3PLs provide improved logistics services at equal or lower cost; in fact, a majority of Fortune 500 companies contract 3PLs [94, 166]. Third-party logistics providers offer their clients opportunities that were previously unavailable, such as the ability to track packages, eliminate extensive inventories, extend network reach, and handle specialized products [166]. However, it is important to ensure a given 3PL is the right fit for your firm, as the partnership is often contractually binding and allows for less producer control [94, 166]. To locate a firm in line with your operation and its needs, explore available online databases, such as the detailed resources provided by 3PLfinder.com, an online third-party logistics locator. Additional examples of 3PL resources are in the box on the next page.

Superior logistics operations, often attainable through partnerships with 3PLs, have become a source of sustainable advantage for firms and will be paramount to success going forward [162]. According to the *2019 23rd Annual Third-Party Logistics Study*, firms must adapt to meet continually changing and complex supply chains, and technology allows firms to obtain data points throughout the supply chain to increase efficiency and transform logistics [167]. In addition, although not entirely applicable for small to medium sized firms, notable advancements have taken place to move beyond third-party logistics providers to include fourth-party logistics

providers. 4PLs are contracted to help their clients manage 3PL firms, often allowing for increased efficiency and an established, expansive supply chain from start to finish [162, 166]. As logistics trends progress, firms should remain current to ensure continued efficiency as well as optimize contracted services.

Examples of 3PL Resources

One of the most recognizable 3PLs is UPS, which serves as a packaging and delivery firm as well as a logistics and transportation provider. UPS has a specialized segment of its business that focuses on small to medium capacity clients, offering solutions to help manage costs, track packages, or obtain financing, along with other services. Other examples of well-known 3PLs that work with small to medium sized firms include FedEx and Red Stag Fulfillment. FedEx offers tailored services through FedEx Fulfillment, FedEx Shipping, and FedEx Freight to provide its clients with discounted offerings. Red Stag Fulfillment focuses on e-commerce, specifically of products that require special handling.

Several established 3PLs have targeted part of their operations specifically to serve forest products firms, such as Ardwin Freight, DFDS, and Valley Distributing & Storage Company. Each firm highlights the importance the forest products industry holds to its operations, as well as its expertise from years of industry exposure both nationally and internationally. Firms specializing in forest products logistics are often flexible owing to varying product types, as well as offer a number of services, such as weighing, packing, re-packing, repair, labeling, and quality control.

- Ardwin Freight: www.ardwin.com
- DFDS: <https://www.dfds.com>
- FedEx: www.fedex.com/en-us
- Red Stag Fulfillment: <https://redstagfulfillment.com>
- UPS: <https://www.ups.com/us/en/services/small-business.page>
- Valley Distributing & Storage: <https://www.valleydist.com>

Note: The companies listed are included as examples of third-party logistics providers. The authors do not endorse or recommend any specific company.

International Freight Forwarders

Many large manufacturing firms have a shipping department to handle distribution processes, but a small to medium sized forest products manufacturer may not have the resources necessary to maintain this type of service. For this reason, using an international freight forwarder should be taken into consideration, because they often act as an agent to shippers and assist in product transportation [23, 159]. Freight forwarders can provide exporters with expert advice on regulations, alternatives for shipping (e.g., mode, terminals), carrier selection, payment, insurance and freight costs, packing, inland carriers, and documentation needed to ship goods overseas [21]. Freight forwarders can handle all the stages of a shipment, from the producer’s facility to the customer’s warehouse. This process

helps producers save both time and effort by lessening or eliminating their involvement in transportation. Freight forwarders take legal responsibility for the shipment, alleviating risk to the exporting firm. Along with handling many organizational aspects of international commerce, freight forwarders are familiar with rules and regulations as well as required documents [23]. They often handle documentation and insurance to ensure that fines are avoided, and efficient processes are maintained.

International freight forwarders provide ocean and air services. The Federal Maritime Commission licenses Ocean Freight Forwarders (OFF) or Non-Vessel-Operating Common Carriers (NVOCCs); they must have three years of experience in forwarding duties in the U.S., as well as possess a valid surety bond [168]. International freight forwarders specializing in air transport or air cargo agents must receive a license administered by the International Air Transportation Association (IATA) [23, 169].

Freight and Port Issues

Despite the benefits of bulk transportation and port efficiency, there are challenges associated with international transportation. Firms must identify the most economically feasible and timely mode of transport, as well as consider the frequency of shipments from a port, as a fair amount of time can pass between when the shipment leaves port and the arrival of the cargo [20]. This can lead to charges to the exporter for taking up space, product damage, and loss of profit from late delivery [20]. Due to variable costs of shipping and uncertainty with shipping schedules, firms may consider the benefits of making reservations through freight forwarders (see previous section on International Freight Forwarders) [20]. There is also a certain level of concern regarding the validity and accuracy of dock receipts that inventory the product condition; if this receipt is incorrect or has not been issued, there is risk to the importer and exporter. In addition, dock receipts only account for a container's exterior condition; they do not include interior inspection and, therefore, do not indicate whether freight shifted in transit and incurred damage that was not noted [20]. Loading and unloading vessels can cause extensive damage to freight, as forklifts can drop or run into product [18].

Risks associated with forest products transportation and storage largely involve temperature and moisture content, as evidenced in research done on three South American manufacturing plants and three containerized ships to the U.S. [84]. The equilibrium moisture content was estimated throughout the studies, and the results ultimately depict a change in moisture content large enough to cause quality issues in products, like hardwood flooring and assembled items (e.g., doors, case furniture).

Pallets

Pallets are “portable platforms” that facilitate the movement and storage of unitized goods [170]. Pallets are a critical component of the logistics infrastructure, as they reduce handling costs and facilitate transportation and storage of raw materials and finished products throughout the supply chain. There are two basic types of pallets: stringer and block. Stringer pallets are two-way or partial four-way entry pallets, in which three parallel pieces of lumber form a frame and separate the top and bottom deckboards, or the pieces in contact with the load and the floor, respectively. Block pallets are four-way entry pallets made with solid wood blocks that support the top deckboards (Figure 12). Air transportation requires the use of full four-way entry pallets, while truck transport only requires two-way entry pallets.

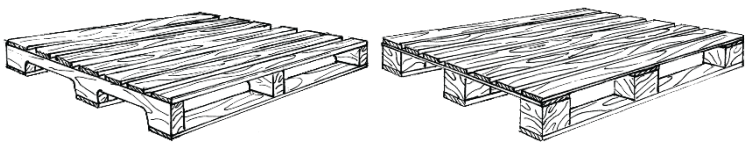


Figure 12. Four-way stringer pallet (left) and block pallet (right) [171].

There are many pallet sizes in use, often dependent on the product dimensions and the geographic region where the pallet is used (Table 16). The most common pallet size in the U.S. is 48×40 inches, commonly known as a grocery or GMA (Grocery Manufacturers Association) pallet. In Asia, the most prevalent size is the 1100×1100 mm pallet, but in Europe, the most common dimensions for pallets are 800×1200 mm (EUR, EUR 1) and 1200×1000 mm (EUR 2) [172].

Table 16. Standard pallet sizes defined by ISO Standard 6780 [172].

Dimensions (inches)	Dimensions (mm)	Region most used
48.0×40.0	1219×1016	North America
47.2×39.4	1200×1000	Europe, Asia
44.9×44.9	1140×1140	Australia
42.0×42.0	1067×1067	North America, Europe, Asia
43.3×43.3	1100×1100	Asia
47.2×31.5	1200×800	Europe

Pallets are often moved using pallet trucks, tow and platform trucks, conveyors, and automated guided vehicles, which are primarily associated with the horizontal movement of palletized product (Figure 13) [159]. However, in a majority of warehouses, pallets are stacked to increase storage capacity, in which case you should look further into the vertical integration of pallet transportation, like forklifts that make stacking possible [159].



Figure 13. Pre-hung entrance doors on pallets ready for loading into an ocean shipping container. Photo credit: Paul Padilla.

Treating and marking wood pallets is critical, particularly when exporting, to comply with the International Standards for Phytosanitary Measures No. 15 (ISPM 15) [77]. ISPM 15 requires that wood pallets be heat-treated (conventionally or with dielectric heating), with its entire cross section reaching 56°C for at least 30 minutes. Other treatments allowed are methyl bromide and sulphuryl fluoride. The standard also requires that pallets be manufactured with debarked wood [77]. ISPM 15 pallets are marked with a distinct symbol, country code, producer/treatment provider code, and treatment code (see Figure 5 in Chapter 2).

Containers

The use of containers has revolutionized logistics by cutting costs and transportation time [21]. Containers are used to transport goods in a safe, secure, and efficient way via truck, rail, or ocean shipment [173]. Ocean shipment accounts for approximately 90% of global trade by volume, making container shipment vital to efficient logistics practices [21, 174]. ISO shipping containers are built under international standards, making them interchangeable and universally accepted. They are commonly offered in 20- or 40-foot lengths and can be used for intermodal transportation (Table 17) [175]. Container size is often contingent on space and carrying needs, as well as cost considerations. It is customary for firms to rent containers for shipment, which can vary in price depending upon the volume and weight of the cargo. There are a number of online tools to estimate ocean shipping costs, such as Sea Rates (<https://www.searates.com>) or World Freight Rates (<https://worldfreightrates.com/freight>).

Table 17. Approximate container dimensions [175]. Photo credit koya979/Shutterstock.



Type	Inside dimensions L×W×H	Door opening W×H	Tare (lb)	Payload (lb)	Capacity (ft³)
20 GP	19'4½"×7'8½"×7'8½"	7'8"×7'5"	5,141	62,400	1,165
20 HC*	19'4½"×7'8½"×8'9"	7'8"×8'5"	5,181		1,307
40 GP	39'5½"×7'8½"×7'8½"	7'8"×7'5"	8,330	58,900	2,331
40 HC*	39'5½"×7'8½"×8'9"	7'8"×8'5"	9,260		2,684

*HC "High Cube" containers are 1 foot taller than GP "General Purpose" containers [175].

Documentation

Documentation is essential for successfully completing and validating any transaction, especially regarding international trade. Owing to the complexity of international operations, it might be beneficial to work with a freight forwarder, shipping agent, Export Assistance Center, District Export Council, or other resource to assist in finalizing documentation, particularly if you are exporting large volumes of product [19]. An Export Assistance Center is a counseling resource for small to medium sized firms offered by the U.S. Commercial Service. To locate an Export Assistance Center near you, visit <https://2016.export.gov/usoffices/> [176]. A District Export Council is an organization of local business leaders appointed by the U.S. Secretary of Commerce to provide expertise on international trade. Visit <https://www.usaexporter.org/local-dec-locator/> to find your local council [177].

Negative effects of faulty or incomplete documentation range from shipment delay or rejection, to hefty fines. Some of the most common export documents are explained in the following sections, and resources can be found in Appendix E.

Documentation Before Shipment

Pro forma invoice. A pro forma invoice lists the costs incurred by the buyer and seller, often used as an offering of sale or price quotation [178]. This document includes a high level of detail regarding product descriptions, itemized charges, and sales terms to prevent errors and save time [38, 39].

Letter of credit. A letter of credit guarantees payment to the exporting firm. Through a letter of credit, an importing bank promises to pay the company, as long

as everything conforms to the prearranged terms. Letters of credit are explained extensively in Chapter 5.

Commercial invoice. A commercial invoice serves as a comprehensive bill from the seller to the buyer in alignment with all predetermined components of the transaction; it is imperative that the exporter complete this form to prove ownership and secure payment [39, 179]. The document should include an itemized merchandise list, customer-purchase number from the pro forma invoice, payment method and currency, shipping terms, bill of lading, container number, ports of exit and entry, and transport instructions [23, 38]. A commercial invoice is also used to accurately value goods when assessing customs duties, so it might be beneficial for an exporting firm to prepare the document in both English and the language of the final destination [39, 178, 179].

Consular invoice. A consular invoice lists the consignor, consignee, and shipment cost and is often used by customs officials to verify the value, quantity, and nature of the shipment [39, 178]. These documents are only required by some countries and must be certified by the destination country's embassy or consulate in the U.S. [38, 39, 178].

Export license. An export license is a document that authorizes the export of goods, regulating based on product type, quantity, and destination [178]. Most products do not require a license and are shipped under the classification "No License Required," which is presumably the category forest products exports would fall under [179]. However, should your product be subject to export controls, your firm may need to obtain a "validated" license, specifically when there is potential to threaten national security, affect certain foreign policies, or create a short supply in domestic markets [38, 179].

Electronic export information filing (formerly known as the shipper's export declaration). An EEI filing is used to keep a record of shipments valued at more than \$2,500 or requiring an export license [23, 178]. EEI is required for nearly all shipments from the U.S. to foreign trade zones and contains information regarding product descriptions, value, weight, and license information [23, 180]. This document assists the U.S. Census Bureau in monitoring U.S. exports. An online version of the form can be completed using the bureau's Automated Export System (<https://www.census.gov/foreign-trade/aes/index.html>) [178, 179].

Packing list. A packing list informs the transporter what goods are being delivered, as well as verifies shipment to the customer [38]. The packing list is typically attached to the outside of the shipping container, which can assist customs officials in checking cargo [23, 178, 179]. An export packing list will extensively detail the parties involved, invoice number, shipment date, and mode of transport, as well as

itemizing quantity, description, type of packaging, number of packages, weight, package marks, and dimensions [38, 178, 179].

Certificate of origin. A certificate of origin formally reports where goods are produced or harvested and typically includes a signed letter originating from the address of the manufacturer [23]. Importers may require firms to complete a certificate of origin to comply with U.S. Free Trade Agreements, often decreasing duty rates or allowing for preferential treatment [19, 179]. A certificate of origin can be validated by a third party (like the Chamber of Commerce), stated on the commercial invoice, or composed by the firm itself, for example, stating “We hereby certify that the goods reflected in [*Invoice Number*] [*dated*] were produced and manufactured in the United States of America on [*date*]” [38, 39, 178].

Inspection certificate. An inspection certificate might be requested by a customer to prove that what a firm is shipping is correct and of good quality, helping to secure against fraud or error [23, 38]. An inspection is often carried out by an independent firm, but as the exporting firm, you should ask that the buyer suggest a trusted agency and cover any costs incurred [38, 39]. It should also be noted that documentation must be precisely detailed, because even slight discrepancies can lead to seizure or delay [179]. As a small to medium sized forest products firm, you will also encounter and should plan for additional documentation, namely the phytosanitary certificate detailed below.

Phytosanitary certificate. Phytosanitary certificates are issued by the U.S. Department of Agriculture to confirm a shipment is free of pests and potentially harmful organisms upon import from or export to foreign countries [38, 180]. Phytosanitary certificates are required for fresh fruits and vegetables, seeds, nuts, flour, rice, grains, lumber, plants, and plant materials, including wood [178]. Phytosanitary requirements for wood packaging are detailed further in Chapter 2.

Insurance certificate. An insurance certificate serves as proof of the valuation and type of insurance purchased for a given shipment [23, 38]. Generally, an insurance certificate assures the consignee that insurance will cover loss or damage to goods in transit [39, 178, 179]. For ocean shipments, roughly 110% of the invoice total must be covered, which can often be sought out from freight forwarders [178, 179].

Documentation in Transit

Shipper's letter of instruction. A shipper's letter of instruction is issued by the exporter to provide a forwarding agent with detailed directions for air or ocean shipment, export control, reporting information, and authorization for electronic export information filing [178, 181].

Dock receipt. A dock receipt acknowledges when goods change hands from the domestic carrier to the exporting firm at the port of embarkation [38, 39].

Bill of lading. A bill of lading establishes the terms of a contract between an exporter and carrier, including transit location and charges, service receipts, and proof of exchange [23, 180]. For vessels, there are two predominant bills of lading, specifically a straight, non-negotiable bill of lading and a shipper's order, negotiable bill of lading, which has the potential for exchange in transit [39, 178].

Chapter Questions

1. As a producer of small forest products, where do you start to find information about shipping internationally?
2. Outline the shipping process, along with the documentation required, from point of origin (your manufacturing facility) to the final shipping destination.
3. How can your customer help you in understanding the shipping process in their country?
4. Why is it important to fully understand the complete shipping process before sending your product overseas?

Chapter 5: Financial Aspects of Export Operations

Calculating and anticipating export finance needs is particularly important when entering an international marketplace, especially as a small to medium sized forest products producer. This chapter outlines sources of financing, financing assistance, financial instruments in exporting operations, and exchange rate issues affecting international trade.

Financing Options for Export Operations

Costs associated with international trade can vary depending upon the agreed Incoterms, the country of origin, the country of final destination, and a variety of other factors that can affect the cost of shipment, export and import duties, insurance, loading, unloading, etc. As a small to medium sized firm looking to export, you may be discouraged by assumedly high costs and risks associated with international operations. However, there are a variety of opportunities — like loans or grants — that can facilitate your operations by providing accessible funding through financing. The different options to finance an export operation are described in this section.

Personal Funds

It is unlikely that a lender or investor will completely finance a new venture, thus it is possible that funding for new ventures will come from the personal savings of the business owner or their family. When a majority of the business is financed with personal savings, the owner has more control; however, this type of financing is also risky no matter how much planning is carried out. One especially risky and expensive way of financing new ventures is to get cash advances on a credit card, which should be avoided at all costs. One very common source of new business financing is borrowing from friends or family, which can be in the form of debt or equity capital. Regardless of the funding sources, entrepreneurs are strongly encouraged to have written agreements with clear information about the amount owed, interest to be paid, and mode of repayment.

Funds From Operations

Before resorting to external financing, a company must first determine whether it has enough funding from internal sources, such as those listed in the box on the next page. Financial need should be summarized in four components: working capital required, additional fixed assets needed, marketing, and financial contingency [182].

The following factors should be considered when determining available funding from internal sources [183].

- Cash in bank accounts, stocks, bonds, treasury bills.
- Reduce receivable collection period, charge interest on credit given.
- Reduce stocks of raw materials or sell unused materials.
- Reduce production of items for stock.
- Resort to supplier financing, using credit, consignment, and others.
- Pay services, such as insurance, in installments.
- Sell fixed assets, including land and unused equipment.
- Divest from unprofitable investments.
- Defer taxes or permits, or pay in installments.
- Extend grace periods and reschedule installments.
- Defer dividend payments.
- Raise new funds from shareholders or bring in new shareholders.

Venture Capital

Venture capital is equity financing for businesses that do not have access to traditional sources of funding. Venture capitalists focus on new companies with high potential for growth and, occasionally, well-established companies with plans to expand overseas. Since they take equity in the business, they are typically more involved in the strategic management of the company. Venture capitalists are later stage investors, meaning that they invest in companies with proven revenue-generating capacity and with a proven technology. One subclass of venture capitalists is known as “angels” — wealthy individuals in search of high-return investment opportunities. Angels typically invest in industries with which they have experience or are very familiar. They often associate with other investors and set up an angel association. One good resource for start-up capital is <https://gust.com>, an online platform where angel investors and entrepreneurs can meet, with browsing tools for investment and funding opportunities.

Bank Loans

Bank loans are the traditional funding method in which the borrower returns the cash plus interest. Loans can be secured, which allow banks to ask for collateral in the case of default, or unsecured, which do not. Secured loans are most commonly used, as the goods being exported can serve as collateral. Unsecured loans will likely be unattainable for a company beginning export operations, as they are usually provided to companies with extensive trade experience [23].

Financing Assistance for Exporters

If a commercial bank is not a viable option or additional assistance is needed, there are a number of other existing institutions that offer financing for small to medium sized businesses. Table 18 lists potential sources of financing for export operations.

Table 18. Potential financing opportunities for export operations (based on [23] and [38]).

Program	Services	Ref.
Private Export Funding Corporation https://pefco.com/	Supplements financing from commercial banks and others	[184]
Overseas Private Investment Corporation https://www.opic.gov/	Helps U.S. firms establish themselves in foreign markets, providing opportunities for domestic and overseas employment	[185]
Small Business Administration https://www.sba.gov/	Contributes to small business growth by providing aid, counsel, and protection	[186]
International Trade Loan Program https://www.sba.gov/	Provides financing to businesses that are expanding due to growing exports	[187]
Export Express Loan Program https://www.sba.gov/	Provides exporters and lenders with a streamlined method to obtain SBA-backed financing	[188]
Foreign Agricultural Service https://www.fas.usda.gov/	Promotes international trade of agricultural products	[131]
Minority Business Development Agency https://www.mbda.gov/	Promotes public and private programs, policy, and research expansion to help minority-owned business growth	[189]
Export-Import Bank of the United States https://www.exim.gov/	Serves as the official export credit agency of the U.S.	[190]
U.S. Agency for International Development https://www.usaid.gov/	Provides export opportunities for U.S. suppliers of technical services and commodities	[191]
Small Business Investment Companies https://www.sba.gov/	Contributes to financing, reporting, examinations, and other services	[192]
7(a) Regular Business Loan Program https://www.sba.gov/	Lends funding for programs to provide small business 7(a) loans	[193]
Export Working Capital Program https://www.sba.gov/	Provides up to \$5 million to facilitate exports, offering low fees and quick processing times	[194]
U.S. Trade and Development Agency https://ustda.gov/	Connects U.S. firms to infrastructure projects overseas to create jobs	[195]

These opportunities, available through both the U.S. government and third-party entities, help firms to establish exporting operations overseas. However, many of these, such as the Export-Import Bank of the United States, do more than just financing and offer a breadth of additional services.

Export-Import Bank of the United States (EXIM)

The Export-Import Bank of the United States (EXIM) is an independent federal agency that provides significant financing and assistance to U.S. exporters with the intent of increasing domestic employment through expansion to foreign markets [190]. The EXIM serves brokers, lenders, importers, and exporters, largely to drive sales expansion in foreign markets. To help facilitate this, they provide export credit insurance, financing assistance, and other opportunities listed below [190].

Protection against buyer nonpayment. The EXIM provides Export Credit Insurance to exporters for foreign receivables as a precautionary measure in case of buyer nonpayment. Should a buyer be unable to pay for the product, the seller is reimbursed by either a private bank or the U.S. government for a portion of lost profit, up to 95%.

Financing. The EXIM works with private banks to help exporters receive financing overseas through both capital loan guarantees and export credit insurance that can increase borrowing power.

Performance and bid bonds. Many foreign importers require letters of credit that serve as performance or bid bonds, but these often require cash payment as collateral, requiring a seller to tie up funding. This can be averted through the EXIM's Working Capital Loan Guarantee Program, again backing a borrower's debt to free up cash for use in export.

Finance a foreign buyer's purchase. The EXIM provides foreign buyers with opportunities typically unavailable in their home countries. These buyers must be creditworthy and are considered more favorably if the project is long-term, large-scale, and high-value.

Borrow against inventory and accounts receivable. It is customary to take out loans against inventory or accounts receivable to fund business ventures, but many private banks do not allow borrowing on export assets. The EXIM provides both Export Credit Insurance, as well as Working Capital Loan Guarantees, in combination with private banks to allow exporters to invest in international trade.

The EXIM also provides a variety of tools and information on their website, including a broker locator, applications and forms, working capital lender locator, country limitation schedule, credit standards, exposure fees, and others [190].

Financial Instruments and Payment Methods for International Trade

This section elaborates on financial instruments commonly used in international trade, specifically methods of payment. There are a variety of methods that enable exporting operations, such as letters of credit, consignment, open accounts, documentary collection, cash-in-advance, export working capital financing, factoring, and forfaiting. Each of these financial instruments has associated risks and benefits (Table 19), and it is important to consider which of these options will best assist a small to medium sized forest products producer overseas. Given their importance, letters of credit are discussed in the next section.

Table 19. Payment risk diagram [196].

	Least secure	Less secure	Secure	More secure	Most secure
Exporter	Consignment	Open account	Documentary collections	Letters of credit	Cash-in-advance
Importer	Cash-in-advance	Letters of credit	Documentary collections	Open account	Consignment

Consignment. Consignment financing is an arrangement in which the exporter maintains ownership of the goods throughout shipment and storage until the product is sold. A foreign distributor receives, manages, and sells goods for the exporter, who receives payment only *after* a sale has occurred [196]. Consignment can be risky for export operations because laws vary between countries, making absolute ownership undefined between importer and exporter. The payment timeline is not guaranteed or steady, causing risk to profits and company financial status [179]. Distance and communication issues are also grounds for concerns, but despite these risks, consignment allows exporters to more competitively operate their business by offering easily accessible goods [20, 196].

Open account. An open account is used when merchandise is shipped overseas without guaranteed payment in return, typically within 30, 60, or 90 days [196]. This form of financing often requires a previously established, good standing relationship with the importing company, good buyer credit and reliability, and export credit insurance to counteract the extensive risk associated with open accounts [20, 23]. However, if an exporter were to decline this form of payment, they may lose business to a competitor [196].

Documentary collection. This is used to ensure that buyers pay for open accounts within a certain time frame or ensure that payment is actually made [20]. It allows an exporting firm to outsource payment collection to their bank, operating in a manner similar to letters of credit (see next section) [196]. Documentary collection can be broken into two sections: documents against acceptance and documents

against payment. Documents against acceptance provide a draft to ensure that the money will be paid at a future date [20]. Credit is extended to the buyer on the basis of the draft and the agreement to pay by the deadline. However, there is notable risk that the buyer cannot or will not fulfill the draft. Finally, documents against payment ensure that the buyer pays for the goods prior to receiving the complete ownership title [20].

Cash-in-advance. To cover risk associated with currency exchange, and push the risk onto the buyer, many firms utilize cash-in-advance financing [20]. Cash-in-advance requires importing firms to pay for goods in full before ownership is transferred, often facilitated by credit cards or wire transfers [196]. Foreign buyers can be skeptical of these payments owing to the risk that goods may not be shipped after the exporter receives payment in full, so you should be wary of this skepticism as you determine competitive payment methods for your products [196].

Export working capital financing (EWC). EWC is provided by commercial lenders and allows small to medium sized firms to offer consigned goods or open account terms through financing and credit, particularly for materials, labor, and inventories (see Table 18) [197]. EWC financing is secured through personal guarantees or assets, making it ideal for high capacity operations. [197].

Factoring. Factoring is often used for domestic trade, but it is also available as export financing, combining services like export working capital financing, credit protection, foreign accounts receivable bookkeeping, and collection services [198]. Factoring is well-suited for small to medium sized firms, particularly for continuous short-term sales of consumer goods on open account terms. But this form of financing can be difficult for firms entering into export operations, as they do not take on a client for a one-time deal and require access to a certain volume of annual sales [198].

Forfaiting. Forfaiting typically occurs with capital goods and commodities, allowing exporting firms to operate in risky markets by selling their medium and long-term foreign accounts receivable, like bills of exchange, promissory notes, and letters of credit, extending from 180 days to seven years [199]. The minimum transaction size for forfaiting is \$100,000, making it ideal for large, established corporations and requiring small to medium sized firms to weigh their options [199].

Letters of Credit

Letters of credit are extremely important for international trade, as they are the most common payment arrangement in exporting operations. A letter of credit provides security through a bank, guaranteeing payment to the seller if the terms of sale are delivered upon [38]. There are two types of letters of credit: irrevocable and revocable [23]. Irrevocable letters of credit allow for modification only with the

consent of both parties, while a revocable letter of credit allows for change at any time without warning. A revocable letter of credit holds significantly more risk for the exporter, so it is advised that exporting companies work with an irrevocable letter of credit [38].

There are four parties involved in the preparation of a letter of credit: two banks and two businesses [38]. The full process is outlined in Figure 14, which includes the issuance, payment, and settlement of a letter of credit, as follows. (1) The importing and exporting firms first establish a sales contract. (2) The importer opens a letter of credit, and (3) the issuing bank forwards the letter of credit to the paying bank and, ultimately, (4) the exporting firm. (5) The seller then ships goods to the buyer and (6) exchanges shipping documents with the paying bank. (7) The paying bank exchanges the shipment documents with the issuing bank, (8) who forwards them onto the buyer. (9) The paying bank then receives payment and (10) forward funds onto the seller.

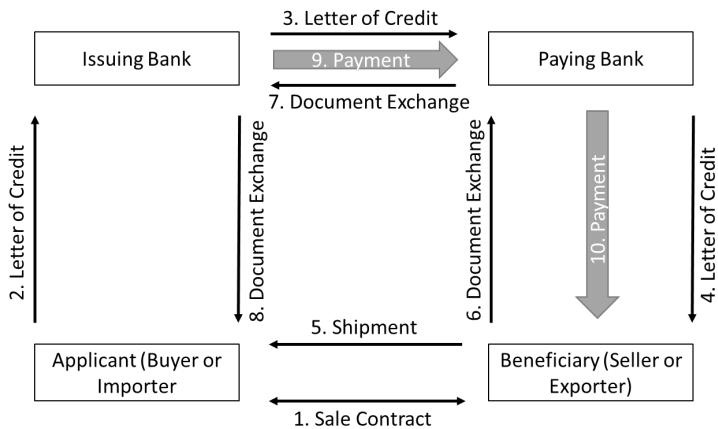


Figure 14. Financing using a letter of credit, derived from [23, 38, 200].

Foreign Exchange Rates

Foreign exchange rates quantify the value of international currencies in relation to the U.S. dollar, affecting the price of American goods sold in foreign markets [201]. Fluctuations in exchange rates (Figure 15) present an additional risk to export transactions, especially when there is a long delay between the purchase and delivery of goods [1], potentially causing significant losses to the exporter [21]. The easiest way to avoid the effects of exchange rate fluctuations is to require payment in U.S. dollars, effectively pushing the risk onto the buyer, who also needs to exchange currency to make payments. This practice, however, may affect your competitiveness against other exporters who are willing to accommodate payment in foreign currency [39].

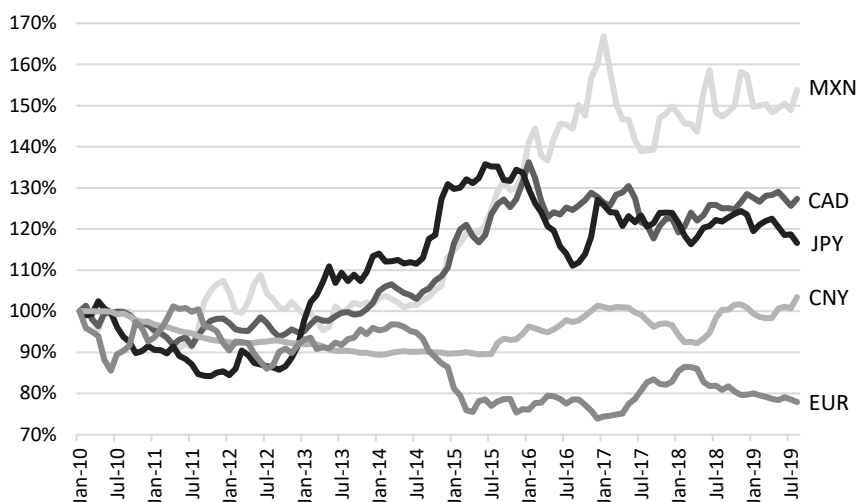


Figure 15. Change in monthly exchange rates for U.S. major trade partners, 2010-2019 (Jan 2010=100%). MXN=Mexican peso, CAD=Canadian dollar, JPY=Japanese yen, CNY=Chinese yuan, EUR=Euro. Source: IMF [202].

Weak currencies are generally favorable for exporting countries, causing their products to be more competitive in the international market. On the other hand, a strong domestic currency is, in general, favorable for imports [203]. However, before accepting payment in foreign currency, it is advised to consult with an international bank.

An example of the effects of foreign exchange rate volatility within the forest sector is reflected through the case of Lamford Forest Products Ltd. in the late 1980s. This Vancouver-based company exported about 70% of their product to the United States [204]. Because Lamford priced their product in U.S. dollars, an unexpected increase in the Canadian dollar decreased the overall valuation of the \$3 million in product [204]. Firms had gotten used to the Canadian dollar standing at a lower value to the U.S. dollar, and businesses were not prepared for a 7% increase within the year, totaling up to 30 cents [204]. Ultimately, it was estimated that Lamford lost an average of \$275,000 Canadian dollars each month due to the exchange rate change [204].

Exchange rates are also relevant when considering financing in a foreign country, because they can affect the valuation of letters of credit or other payment instruments. If an exporter does not factor in exchange rates, it has the potential to add 15%-20% to the costs [19].

Hedging Against Exchange Rate Fluctuations

New opportunities have emerged from globalization, but so have risks, particularly for commodities like lumber and other forest products [205]. Commodity price and exchange rate variability affects virtually all participants in any business transaction [21, 206]. For this reason, many firms operating in commodity markets use *hedging* strategies to manage price volatility and foreign currency risk, often providing insurance against adverse fluctuations [23, 206]. Hedging typically works through the assistance of a third-party firm, such as a bank, to eliminate expected or unforeseen risks by using the forward foreign exchange market [23]. There are several ways for an exporter to hedge against exchange rate fluctuations that should be explored [207].

- **Foreign bank account.** By opening and using a foreign bank account, your firm can exchange currency when the rate is promising.
- **Currency forward contract.** A currency forward contract locks in a price using the current exchange rate for a future transaction.
- **Futures contract.** Similarly, a futures contract guarantees a price using an exchange rate agreed upon today, while also providing opportunities to sell the contract before the term is up if circumstances change. For example, a lumber producer can lock in prices for future sales by buying contracts traded in the Chicago Mercantile Exchange [208].
- **Currency options.** Banks provide opportunities for firms to buy or sell currency at a set price on or before a chosen rate expiration date.

Chapter Questions

1. How have you thought to finance your international operations?
2. What are potential sources of financing when you start exporting?
3. What is your budget to start your international operations?

Chapter 6: Bringing It All Together — Sample Urban Forest Products International Marketing Plan

To export effectively, firms must accommodate necessary regulatory, financial, and logistics requirements while simultaneously driving adequate product demand. This final chapter brings together and applies concepts outlined throughout this guide. It outlines how to write an international marketing plan, focusing specifically on small to medium sized firms creating value-added products with sustainable raw materials, like urban wood.

Urban Wood Utilization

Urban forests present environmental, social, and economic benefits. However, when urban trees need to be removed, the residues generated (logs, branches, brush) have traditionally been disposed of as waste or directed to low-value uses. To divert urban forest supplies traditionally underutilized or landfilled, the urban wood products industry has emerged to produce value-added products, often appealing to consumers through raw material attributes, including environmental sustainability, sentimentality, and unique aesthetics.

Urban Forests

The 74 billion trees in the metropolitan areas of the United States bring a number of environmental, economic, and societal benefits, including air quality, carbon sequestration, soil quality, wildlife and biodiversity, decreased heating and cooling costs, increased real estate value and commercial sales, noise control, aesthetics, a sense of safety and community, public health, and others [209-211]. Benefits from urban forests are vital to their perceived valuation and desire for cities or homeowners to maintain and grow them. When these trees need to be removed owing to storm damage, invasive species infestation, development, aesthetics, disease, or other reasons, they have traditionally been regarded as urban “wood waste” (Table 20). The U.S. Environmental Protection Agency defines urban wood waste as “*yard trimmings like logs and limbs, wood from project site removals, pallets, furniture, packaging, and other commercial or household wood waste disposed of in landfills*” [212]. Understanding urban forest cover and possible diversion outlets will be vital to future resource management, particularly as urban areas transform with population growth. U.S. urban areas are anticipated to increase by 392,400 km² by 2050 [213].

Urban Wood Supplies

The U.S. Forest Service calculated that approximately 34.2 million tons of urban wood waste entered the municipal solid waste (MSW) stream in 2010. Of that total, 18.4 million tons consisted of woody yard trimmings like trees and limbs, of which 4.0 million tons was available for recovery (Table 20) [214]. When not sent to a landfill, urban wood waste remains largely underutilized, often for landscaping mulch, firewood, or composting. However, an industry has emerged to utilize urban wood for value-added production, recognizing its potential to bolster local economies, decrease stress on landfills, alleviate demand from forests, provide resource management opportunities, and others.

Table 20. U.S. Forest Service 2010 municipal solid waste (MSW) analysis, million tons [214].

Source	Generated	Recovered	Combusted	Not usable	Available for recovery
Wood component ¹	15.8	1.4	3.5	3.5	7.3
Woody yard trimmings ²	18.4	10.6	1.9	2.0	4.0
Total MSW wood	34.2	12.1	5.5	5.5	11.1

¹ Data generated by the EPA included durable goods and containers (e.g., furniture & pallets).

² Data generated by the Forest Service consisted of 55% wood and 45% herbaceous material.

Urban Wood Utilization

The urban wood industry is highly variable in both size and capacity; however, most firms are small to medium sized. A recent survey of both the urban and reclaimed wood industries found that more than 65% firms have less than 10 employees [215]. As the industry has grown, producers have had to seek a reliable supply stream as well as educate consumers and stakeholders on the value of urban wood products, including benefits to the environment and communities. To increase awareness and drive raw material utilization, the industry has come together to focus on collaboration, emphasizing education and increased efficiency through efforts like the Urban Wood Network [216]. This national network includes a variety of companies, cities, and state-specific networks, such as the Virginia Urban Wood Group [217], Wisconsin Urban Wood [218], and Urban, Salvaged, and Reclaimed Woods Inc. [219]. These networks help to promote efficient urban wood production, providing their members with educational materials and tools to effectively build relationships and market their products. Prevalent urban wood products include furniture, slabs, mantels, lumber, and others, primarily sold at a premium owing to their unique product attributes (Figure 16). Such products are opening up new market opportunities for local, value-added products. Some urban wood firms may have a desire to expand globally but lack the resources necessary to formulate effective strategies. For this reason, this chapter provides an international marketing plan framework and hypothetical case study.



Figure 16. Stages of urban wood utilization. Clockwise from top left: urban wood logs, kiln-dried lumber sourced from urban logs, surfacing machine commonly used for live-edge boards, finished products. Photo credits: Omar Espinoza, Anna Pitti.

Marketing Plan Framework

Marketing planning is *“the process that leads to an understanding of an organization’s position in the market and a series of marketing decisions and actions to achieve an organization’s goals within a specific time frame”* [220]. A well-constructed marketing plan is vital to effectively entering markets abroad, particularly for small to medium sized firms [221]. For this reason, each component of an international marketing plan should be detailed, thorough, and tailored to the country of interest, particularly the market research and situational analysis components from which target markets will be identified and strategies formulated, ultimately leading to implementation and control (Figure 17) [221, 222].



Figure 17. Four steps to successful market planning [220].

Because there are many facets of an international marketing plan, it is often more complex than a domestic plan [221]. This section outlines the necessary components of an international marketing plan, specifically: a company

introduction, research methodology, situational analysis, SWOT (strengths, weaknesses, opportunities, and threats) analysis, objectives, marketing strategies (product, price, promotion, and placement), planning, implementation, and control, as well as potential supplementary resources. This section will also delve further into each aspect of an international marketing plan using a case study for a hypothetical urban wood firm named **Urbanwood Insights**.

Introduction

The introduction should include a brief company background, mission statement, and corporate objectives [220]. It helps to conceptualize both short- and long-term goals, often with regard to products, capital, and research [223].

Urbanwood Insights started in 2010 when two business partners came together to make their passion a livelihood. Operations center around value-added, custom production with urban wood raw materials. The five full-time employees of Urbanwood Insights conduct all operations, working to design, saw, mill, dry, process, finish, assemble, market, sell, etc. To ensure a steady stream of quality supplies, Urbanwood Insights partners with a local tree care firm. The mission of Urbanwood Insights is to provide a quality, sustainable outlet for urban logs traditionally destined for landfill through value-added production. Urbanwood Insights seeks to expand market reach by exploring export operations, requiring increased efficiency and targeted appeal to consumers.

Research Methodology

Market research methods should be standardized and reported to validate the tool utilized. To conduct adequate and thorough research, firms should collect both primary and secondary data; primary data collection includes information directly gathered by the company, and secondary data collection includes existing reports [224]. The methodology used should be reported in further detail in the appendix section, including interview and survey questionnaires.

Market research consisted of three steps: analysis of secondary data, a survey of international retailers, and interviews with stakeholders in high-potential markets. Urbanwood Insights analyzed historical data for imports of value-added forest product to different markets using the USDA Foreign Agricultural Service's database [8]. In addition, a survey was distributed to a variety of international retailers to gauge interest in urban forest products overseas. Once the survey was closed and data analyzed, several countries of interest were identified, including Japan and countries in Europe where consumers may be interested in the company's products. Further, interviews were conducted to narrow down potential markets and identify

specific market segments. Interviews provided insight into various consumer purchasing preferences and cultural trends and shed light onto export potential for Urbanwood Insights overseas. After extensive research and analysis, it was determined that Japan was the best fit for Urbanwood Insights to start exporting.

The results of market research provide the background for and the foundation of a marketing plan, where firms must continuously refine strategies to accommodate both trends and time constraints [220].

Situational Analysis

A situational analysis helps firms to understand the environment they are operating in or will enter into. To fully understand the potential risks and rewards of a new market, firms should conduct an internal, external, competitor, and consumer analysis, each of which will affect a business differently.

Internal Analysis

Internal analysis should evaluate company strengths and weaknesses, outlining operating revenues, business models, consumers, products, and others [220, 224]. It should contain a comprehensive company overview, including the company structure, stakeholders, operations, departments, and employees, to set the stage for future planning. The internal analysis should also outline assets and skills that can create sustainable competitive advantages and provide differentiation.

Urbanwood Insights is a privately owned, small business with five employees. The company operates via the following structure: the owner manages the operation and conducts sales, an administrative assistant helps to keep operations running effectively, and three shop employees divide production among themselves, including sawing, drying, machining, finishing, packing, transportation, and, occasionally, installation. Production consists primarily of value-added custom urban wood products, with some, but minimal, stock production. Product offerings largely include furniture and other customer-specific products. The urban wood industry has grown steadily over the past decade with demand for natural, live-edge products and unique raw material attributes and designs. Domestically, customers include architects, designers, and individual consumers, requiring made-to-order production and accommodations associated with variable demand. Competitive advantages offered by Urbanwood Insights include environmentally friendly products, an inviting company culture, extensive community involvement, and unique designs.

External Analysis

An external analysis encompasses the political and legal climate, economic status, demographic characteristics, technological status, and relevant natural resources, such as those that affect distribution, storage, or transportation [224-226]. The goal is to outline trends and changes in the environment that present opportunities and threats [220]. To operate efficiently, companies must understand factors that affect consumer demand overseas, like present or anticipated regulation and safety standards, to plan for duty rates, restrictions, standards, and certification [224]. A firm should analyze the economic status and demographic attributes of the target country, as it can indicate potential support for foreign entrants, including gross domestic product (GDP), forecasted economic growth, inflation rates, per capita income, unemployment, education, and others [222, 224]. Understanding prevailing cultural norms within the target market is vital to customer receptivity and conducting international business, including language barriers, purchasing preferences, attitudes, interests, and social trends [222, 224].

External Analysis: Japan	
Political and legal:	Clean Wood Act [227]; Phytosanitary Measures No. 15 (ISPM 15); import requirements, established relationship with the U.S., variable tariff rates
Economic:	GDP: US\$5 trillion (2018); forecasted economic growth: 0.8% (2018); inflation rate: -0.1% (2018) [228]
Social and cultural:	Valuable attributes for Japanese consumers: space-saving, cost, quality; consumers value colleague opinions highly; <i>wabi-sabi</i> design (appreciation for natural flaws)
Demographic:	Population: 126.5 million (2018) – rapidly declining; gross national income per capita: \$41,340 (2018); exports (% of GDP): 18% (2018); imports (% GDP): 17% (2018) [228]
Technological:	Global leader in technology, easy access to technology, 85% of population with internet access [228]
Natural and physical:	Island – major export cities include Tokyo, Yokohama, Kobe, Osaka, and Fukuoka; dense city populations – require small retail stores as points of purchase and frequent wholesale product deliveries; forest area: 249.6 thousand km ² [228]
Market potential:	Japan relies heavily on imports to meet its internal demand. It imported \$790 million of U.S. forest products in 2018 and was the sixth and fourth export market for U.S. hardwoods and softwoods, respectively [8].

Competitor Analysis

A firm must understand existing competitors, particularly in association with existing markets, business operations, and consumer perceptions. Firms should consider factors necessary for company operations, such as production, marketing, and distribution overseas, with a focus on how costs and competition compare between foreign competitors [224]. Firms should also identify a variety of competitor attributes, including sourcing, market share, product lines and characteristics, distribution strategy, and pricing [226].

As the urban wood industry grows, it is anticipated that competition will increase, incentivizing expansion into international markets. Overseas, high-end substitute products will be the primary source of competition. Companies serving as potential competition might include Nitori [22], Muji [23], Wood-You-Like Company [24], and Wise-Wise [25]. Nitori is centered on affordability, Muji on design, Wood-You-Like on customizability, and Wise-Wise on customers and the environment. Because of the similarities between Wise-Wise and Urbanwood Insights, broad-level characteristics of this Japanese firm are outlined below.

Competition profile: Wise-Wise Co. Ltd. [229]

Sourcing networks:	FSC-certified raw materials and timber from domestic forests
Market:	Residential and commercial consumers
Product offerings:	Furniture (from cherry, walnut, maple, oak, and Japanese ash), interior designs, specialty goods
Distribution:	Sell at retail stores, direct to consumer
Pricing:	Premium products, priced accordingly
Assets:	Relationships, industry knowledge, FSC chain-of-custody certification
Unique attributes:	Push for unique designs and sustainability, “creating peace and comfort in life”

Consumer Analysis

This section of the marketing plan should define the target consumer selection criteria and rationale, often evaluated using demographics like age, income, population density, or cultural preferences [226]. The nature of demand should be analyzed to adequately understand the available markets in a given country, particularly in relation to consumer interest in your products, which will vary as a product progresses through its life cycle [224].

Urban wood products are new to Japan, but wabi-sabi design preferences (seeing the beauty in natural flaws) have been long established. Because live-edge and urban wood products are new to Japanese markets, they are in the introduction stage, meaning that education will be an extremely important aspect of marketing going forward. Because Japanese consumers value quality, products will be priced comparatively to appeal to high-end consumers, accounted for in high Japanese per capita income. High income, middle-aged consumers will be targeted owing to their purchasing power and established market presence. Urbanwood Insights will also target consumers in cities, like Tokyo, owing to high concentrations of consumers that prefer face-to-face point of sale.

SWOT Analysis

A SWOT (strengths, weaknesses, opportunities, and threats) analysis is used to outline internal and external environments in which a firm operates to formulate strategies accordingly [230]. Strengths and weaknesses are internal to the company and largely involve products and services, while opportunities and threats are external trends that a firm has minimal control over [224]. Using the information compiled in the situational analysis, firms should conduct a SWOT analysis to summarize strengths to bolster and weaknesses to address, as well as opportunities to take advantage of and threats to combat [230]. A SWOT analysis is often presented using a table, as presented below.

Strengths Competitive advantages and differentiation <ul style="list-style-type: none">• Product quality• Unique aesthetics• Inherent product sustainability• Few substitute products available – exclusivity	Weaknesses Shortcomings compared with competitors <ul style="list-style-type: none">• Price points• Cost of international shipment• Lack of product and name recognition• Lack of established relationships with Japanese companies• Large products – need to drive demand in space-constrained homes
Opportunities External trends that provide opportunities <ul style="list-style-type: none">• Demand for sustainably sourced, quality products• Innovative designs (i.e., wabi-sabi)	Threats External trends that threaten operations <ul style="list-style-type: none">• Other firms providing similar live-edge and sustainable furniture• Current tumultuous political climate• Demand for lower price points

Objectives

International objectives: This section should be used to iterate what a firm is looking to achieve by operating internationally, specifically with regard to goals for international growth, cost efficiencies, diversification, competition, etc. [223, 224].

Urbanwood Insights is working to enter markets overseas with the help of brokers and Japanese partners to successfully appeal to prospective customers overseas. Urbanwood Insights is testing the feasibility of overseas export, setting objectives to generate revenue and identify expansion opportunities abroad.

Market objectives: Market objectives outline what specific segments a firm should allocate resources to, ensuring maximum success in targeted markets [222, 224]. Using the situational analysis, firms should establish SMART (specific, measurable, achievable, realistic, and time-bound) goals to create a clear picture of where they are and where they want to go [220, 223, 224]. To successfully achieve these objectives, financial metrics must be estimated to sustain growth and expansion, often calculated using break-even and ROI analysis [224].

Because urban wood firms are primarily small to medium sized operations, it is not expected that Urbanwood Insights will gain large market share, but the goal is to generate \$100,000 in international sales within the first year and \$500,000 within five years. Urbanwood Insights also seeks to educate Japanese consumers regarding general urban wood production and utilization of a traditionally undervalued resource to generate international demand and build brand awareness.

Recommended Marketing Strategy

In this section, using one sentence, firms should clearly and definitively state their target markets and positioning strategies, or how a firm intends to be viewed in relation to its competitors [224]. Despite being a short snapshot of overall company operations and values, product positioning and the resulting positioning statement are vital to success and should directly reflect consumer perceptions [221].

Urbanwood Insights will export high-end urban wood products from the U.S. to Japan, appealing to middle-aged, high-income consumers with intangible attributes like exclusivity, quality, and unique design.

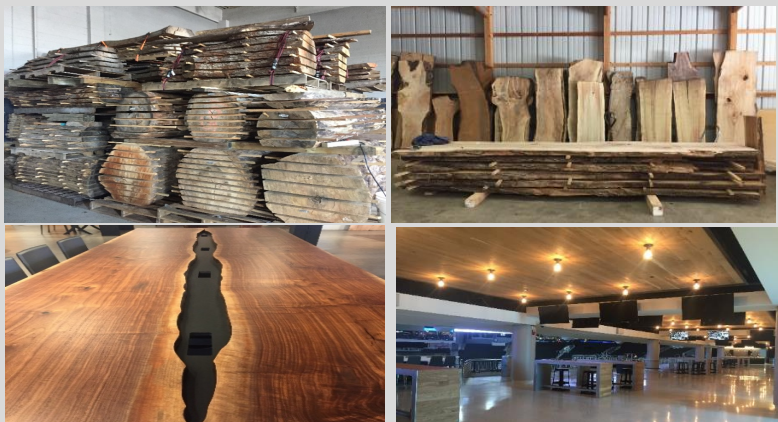
Using the information in the previous sections, firms should draft a market entrance strategy, which will be vital to success overseas. Companies frequently begin with modest export, often facilitated by one of four entrance strategies: (1) internet and direct sales, (2) contractual agreements (licensing and franchising), (3)

strategic alliances (joint ventures and consortia), and (4) direct foreign involvement (ownership) [224]. A useful framework to formulate international marketing strategies is the Marketing Mix, or the 4P's (product, price, promotion, and placement), which are also frequently used for domestic plans. Firms should reevaluate pre-established marketing strategies when entering into international markets, as it can be detrimental to assume that "one size fits all" [223].

Product Strategy

Product strategy includes aspects beyond the physical product, encompassing existing product modifications, new product development, packaging alterations, cultural preferences, etc. [220, 224]. It will also be important to consider product perceptions as well as overall market and economic development, which has potential to affect consumer willingness to pay for high-end products [221].

Urbanwood Insights will export high-end furniture as well as explore the potential for standardized product lines, such as various paneling products. Urbanwood Insights will export made-to-order furniture options, as there may be variable need regarding size and functionality, for example, a need for space-saving furniture in Japanese homes. To differentiate products within Japanese markets, furniture exports will primarily leverage wabi-sabi designs by incorporating live-edge slabs, or rough sawn lumber that highlights the natural edge of the wood. In addition, as the industry expands, there is potential for urban wood certification through Program for the Endorsement of Forest Certification (PEFC), providing opportunities to drive demand associated with consumer valuation of sustainable products [19].



In-process and unfinished urban wood products (top); live-edge furniture and high-end paneling (bottom). Photo credits: Anna Pitti.

Price Strategy

Determining how to set pricing abroad is a pressing issue and must be considered, specifically making note of exchange rate complications, competitor pricing, costs, market structure, perceived product value, etc. [221, 223, 224]. Success is often reliant on properly identifying the price a market can bear [222].

Urbanwood Insights will ultimately price products using value-based pricing associated with consumer valuation of intangible product attributes. However, prior to entering into the marketplace, the ultimate price of the product must account for raw material acquisition, specialized labor, unique raw material attributes, and overseas shipment costs, as well as desired profit margins. To determine consumer valuation, Urbanwood Insights will analyze historical data, specifically of high-end forest products in Japan, to evaluate their competition, as well as survey consumers to determine their willingness to pay for high-end products and evaluate the price the market can bear.

Place (Distribution) Strategy

Distribution is how the end consumer receives their product; single and multiple channels are often available but will vary between countries [223]. Distribution can be carried out directly or indirectly, through joint ventures with local partners, using licensed technology, or franchise [224]. Partners can be identified, including distributors, agents, etc., to help increase efficiency. Partner decisions should be based on factors such as credentials, expertise, funding, integrity, competence, and capacity [220, 224]. Firms should also consider the importance of compatibility between a given product and its placement, highlighting interaction with target consumers, such as selling high-end products in a showroom [223]. Logistics management operations discussed in Chapter 4 are also vital to the placement strategy discussed in the marketing plan.

A Japanese distributor will assist with export and facilitate a joint venture with local partners. It will be important to utilize an intermediary and leverage a network of contacts to effectively distribute products and expand market reach, as Japanese business operations are often reliant on established relationships. Intermediaries also allow urban wood firms to operate at capacities they would otherwise be unable to achieve on their own, allowing Urbanwood Insights to focus on its core business operations. In addition, Urbanwood Insights will explore online sales as operations expand and enter international markets, allowing Urbanwood Insights to reach international consumers using new, unique methods, particularly via a company webpage and potentially a third-party provider, like Amazon or Rakuten.

Promotion Strategy

Firms use promotion to effectively reach their consumers, and it is often tailored to target consumers, specifically accounting for cultural differences overseas [224]. To effectively execute promotional strategies overseas, firms should conduct market research to gauge receptivity and ensure that messaging will land, working to ultimately increase awareness, trial opportunities, positive attitude toward the product, and temporary sales [223]. Types of promotional platforms must also be considered; effectiveness varies between personal selling, point-of-sale promotion, direct mail, etc. between industries [220, 224]. Media considerations are also vital to effective messaging and appeal to consumers, including word of mouth, social media, television, print, and events like international trade shows [224].

Print, social media, and webpage content will be generated to reach consumers abroad, specifically to educate, build a brand, and outline available products. Urbanwood Insights will also pursue the potential for local product representatives abroad, as well as social media influencers. Content will be translated into Japanese to ensure overseas consumers are receptive to available urban wood products. Urbanwood Insights will explore attendance at lifestyle and design trade shows abroad, like the Design Tokyo Products Fair, Lifestyle Week Tokyo, or JapanTex Interior Trend Show. Promotional messages utilized overseas will primarily include exclusivity, as messages of local production are lost abroad, as well as quality and unique designs.

Planning Budget

To properly carry out all other marketing operations, firms must adequately allocate funds, anticipating costs and comparing sales with expenditures with a three- to five-year time frame in mind [223, 224]. Forecasts will include sales and market share estimates as well as costs and profitability. Forecasts should be presented as profit and loss (P&L) statements, including a break-even analysis. As discussed in Chapter 3, a break-even analysis should be conducted to determine the number of units that need to be sold to balance the sales revenue with total cost of production and sale, as outlined below:

$$\text{Break-even point} = \frac{\text{Fixed costs}}{\text{Unit selling price} - \text{Unit variable cost}}$$

From the break-even point, firms must determine how to best price their products to optimize profits and continue operations, of which the two most common methods are cost-plus pricing and marginal costing. Cost-plus pricing is carried out by calculating total costs and adding a mark-up for the desired profit margin. Marginal costing calculates the differential costs of manufacturing products for

export, often relying on consistent domestic income. Marginal costing often prices export products lower than those sold domestically to increase competitiveness.

It is anticipated that, within the next five years, Urbanwood Insights will have an established consumer base and effective operations overseas. To do so, budget planning justifies economic viability.

Price calculation using **cost-plus method**, factors to consider:

- ☐ Ex works price, manufacturers facility (wholesale)
- ☐ Transport to port
- ☐ Customs clearance
- ☐ Agent’s commission (5%)

Free on Board (FOB) price, port of origin

- ☐ Sea shipment freight
- ☐ Sea shipping documentation, bill of lading (B/L)
- ☐ Marine insurance

Cost, Insurance, Freight (CIF) price, port of destination

- ☐ Import duty (20% of CIF price)
- ☐ Custom clearance
- ☐ Delivery to customer’s warehouse

Delivered Duty Paid (DDP) price, customer’s warehouse

Implementation and Control

Tactics and actions outlined in the marketing plan are often implemented through the use of the McKinsey Seven S (7S) model, which considers structure, systems, shared values, skills, staff, style, and strategy [220, 224]. The marketing plan accounts for unforeseen changes and lets them unfold through implementation [94].

Urbanwood Insights will implement the marketing plan in fall 2019, allocating time to prepare all marketing materials and effectively enter the market using the following quarterly timeline:

Activity	2019				2020				2021			
	1	2	3	4	1	2	3	4	1	2	3	4
Market research												
Promotion												
Channel setup												
Export operations												
Adaptation; launch												

This section also summarizes how to monitor and measure outcomes of the marketing plan to determine effectiveness and adapt as needed [224]. This will require standards and performance measurements, often evaluated based on sales volume, sales value, or marketing contribution [220, 224]. Short-term controls include annual plan control (quota compared with sales), profitability control, and efficiency control; long-term controls largely consist of audits [94]. The plan is also monitored and reviewed to identify potential modifications, such as changes with regard to the political or economic environments [222]. Finally, a contingency plan should be formulated to outline proper responses to contingency events [224].

Appendices

Additional resources used to compose the marketing plan are often placed in the appendices to consolidate information. Resources can include market research tools and results, situational analysis, SWOT analysis, evaluation of alternative marketing strategies, and additional promotional materials.

Chapter Questions

1. Do you have an established domestic marketing plan?
2. Have you considered a country of interest for international export?
3. What objectives are you looking to achieve through export?
4. How will you go about achieving your objectives through various marketing mix strategies, including product, price, place (distribution), and promotion?
5. How will you monitor and control the outcomes of implementing your plan?

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Appendix A: Resources

Domestic Forest Products Associations

Architectural Woodwork Institute

46179 Westlake Dr., Suite 120
Potomac Falls, VA 20165-5874
Tel.: 571-323-3636
www.awinet.org

American Forest and Paper Association

1101 K St., NW, Suite 700
Washington, DC 20005
Tel.: 202-463-2700
www.afandpa.org

American Hardwood Export Council

1825 Michael Faraday Dr.
Reston, VA 20190
Tel.: 703-435-2900
www.ahec.org

Forest Products Society

15 Technology Parkway South, Suite 115
Peachtree Corners, GA 30092
Tel.: 855-475-0291
www.forestprod.org

Hardwood Distributor's Association

P.O. Box 427
High Point, NC 27261
www.hardwooddistributors.org

Hardwood Federation

1111 19th St., NW, Suite 800
Washington, DC 20036
Tel.: 202-463-2705 Fax: 202-463-4702
hardwoodfederation.wildapricot.org

Hardwood Manufacturers Association

665 Rodi Road, Suite 305
Pittsburgh, PA 15235
Tel.: 412-244-0440 Fax: 412-244-9090
www.hmamembers.org

International Wood Products Association

4214 King St.
Alexandria, VA 22302
Tel.: 703-820-6696 Fax: 703-820-8550
www.iwpawood.org

Moulding & Millwork Producers Association

507 First St.
Woodland, CA 95695
Tel.: 530-661-9591 Fax: 530-661-9586
www.wmmpa.com

National Hardwood Lumber Association

P.O. Box 34518
Memphis, TN 38184-0518
Tel.: 901-377-1818
www.nhla.com

National Lumber and Building Material Dealers Association

2025 M St., NW, Suite 800
Washington, DC 20036-3309
Tel.: 202-367-1169
www.dealer.org

National Wood Flooring Association

111 Chesterfield Industrial Blvd.
Chesterfield, MO 63005
Tel.: 636-519-9663
www.woodfloors.org

National Wooden Pallet and Container Association

1421 Prince St., Suite 340
Alexandria, VA 22314-2805
Tel.: 703-519-6104 Fax: 703-519-4720
www.palletcentral.com

North American Wholesale Lumber Association

330 North Wabash, Suite 2000
Chicago, IL 60611
Tel.: 312-321-5133 Fax: 312-673-6838
www.nawla.org

Society of Wood Science and Technology

P.O. Box 6155
Monona, WI 53716-6155
Tel.: 608-254-2769
www.swst.org

Wood Component Manufacturers Association

P.O. Box 662
Linstrom, MN 55045
Tel.: 651-332-6332 Fax: 651-400-3502
www.wcma.com

Wood Machinery Manufacturers of America

9 Newport Dr., Suite 200
Forest Hill, MD 21050
Tel.: 443-640-1052 Fax: 443-640-1031
www.wmma.org

Wood Products Manufacturers Association

P.O. Box 761
Westminster, MA 01473-0761
Tel.: 978-874-5445 Fax: 978-874-9946
www.wpma.org

Trade and Market Publications

American Lumber and Pallet

P.O. Box 1136
Fayetteville, TN 37334
Tel.: 931-433-1010 Fax: 931-433-1081
www.amlumber.com

Crossties

115 Commerce Dr., Suite C
Fayetteville, GA 30214
Tel.: 770-460-5553
www.rta.org

Crow's Market Report

4 Alfred Cir.
Bedford, MA 01730
Tel.: 781-734-8900 Fax: 781-271-0337
www.risiinfo.com

Hardwood Market Report

P.O. Box 2633
Memphis, TN 38088-2633
Tel.: 901-767-9126 Fax: 901-767-7534
www.hmr.com

Hardwood Review

P.O. Box 471307
Charlotte, NC 28226
Tel.: 800-638-7206 Fax: 704-543-4411
www.hardwoodreview.com

Intl. Wood Products Association Magazine

4214 King St.
Alexandria, Virginia 22302
Tel.: 703-820-6696 Fax: 703-820-8550
www.iwpawood.org

Lumbermen's Equipment Digest

P.O. Box 1146
Columbia, TN 38401
Tel.: 800-477-7606 Fax: 931-388-3564
www.lumbermenonline.com

National Hardwood Magazine

5175 Elmore Rd., Suite 23
Memphis, TN 38134
Tel.: 800-844-1280 Fax: 901-373-6180
www.nationalhardwoodmag.com

Northern Logger and Timber Processor

P.O. Box 69
Old Forge, NY 13420
Tel.: 315-369-3078 Fax: 315-369-3736
www.northernlogger.com

Pallet Enterprise

10244 Timber Ridge Dr.
Ashland, VA 23005
Tel.: 804-550-0323 Fax: 804-550-2181
www.palletenterprise.com

Pallet Profile Weekly

10244 Timber Ridge Dr.
Ashland, VA 23005
Tel.: 804-550-0323 Fax: 804-550-2181
www.palletprofile.com

Random Lengths

P.O. Box 867
Eugene, OR 97440-0867
Tel.: 541-686-9925
www.randomlengths.com

Sawmill and Woodlot Management

P.O. Box 1149
Bangor, ME 04402
Tel.: 207-945-9469 Fax: 207-945-9874
www.sawmillmag.com

Timber Processing

P.O. Box 2268
Montgomery, AL 36102-2268
Tel.: 334-834-1170
www.timberprocessing.com

Wood Products

P.O. Box 1400
Lincolnshire, IL 60069
Tel.: 847-634-2600 Fax: 847-634-4374
www.woodworkingnetwork.com

Wood Markets Monthly Intl. Report

Suite 603, 55 E. Cordova St.
Vancouver, BC Canada V6A 0A5
Tel.: 604-801-5996 Fax: 604-801-5997
www.woodmarkets.com

U.S. Forest Service

Forest Products Laboratory

One Gifford Pinchot Dr.
Madison, WI 53726-2398
Tel.: 608-231-9200 Fax: 608-231-9592
www.fpl.fs.fed.us

**Northeastern Area State & Private Forestry
– Wood Education and Resource Center**

301 Hardwood Lane
Princeton, WV 24740
Tel.: 304-487-1510
www.na.fs.fed.us/werc

Northern Research Station

241 Mercer Springs Rd.
Princeton, WV 24740
Tel.: 304-431-2700 Fax: 304-431-2772
www.nrs.fs.fed.us

Pacific Northwest Research Station

1220 SW 3rd Ave.
Portland, OR 97204
Tel.: 503-808-2100
www.fs.fed.us/pnw

Region 1 – Northern Region

P.O. Box 7669
Missoula, MT 59807-7699
Tel.: 406-329-3351 Fax: 406-329-3347
www.fs.usda.gov/r1

Region 2 – Rocky Mountain Region

740 Simms St.
Golden, CO 80401
Tel.: 303-275-5350
www.fs.usda.gov/r2

Region 3 – Southwestern Region

333 Broadway SE
Albuquerque, NM 87102
Tel.: 505-842-3392
www.fs.usda.gov/r3

Region 4 – Intermountain Region

324 25th St.
Ogden, UT 84401
Tel.: 801-625-5605
www.fs.usda.gov/r4

Region 5 – Pacific Southwest Region

1323 Club Dr.
Vallejo, CA 94592
Tel.: 707-562-9240 Fax: 707-562-9130
www.fs.usda.gov/r5

Region 6 – Pacific Northwest Region

1220 SW 3rd Ave.
Portland, OR 97204
Tel.: 503-808-2438
www.fs.usda.gov/r6

Region 8 – Southern Region

1720 Peachtree Rd., NW
Atlanta, GA 30309
Tel.: 404-347-4095 Fax: 404-347-1781
www.fs.usda.gov/r8

Region 9 – Eastern Region

626 East Wisconsin Ave.
Milwaukee, WI 53202
Tel.: 414-297-3600
www.fs.usda.gov/r9

Region 10 – Alaska Region

3301 C St., Suite 202

Anchorage, AK 99503

Tel.: 907-743-9467 Fax: 907-443-9479

www.fs.usda.gov/r10

Southern Research Station – Brooks

Forest Products Center

1650 Ramble Rd.

Blacksburg, VA 24061-0503

Tel.: 540-231-4016 Fax: 540-231-1383

www.srs.fs.usda.gov

Sustainability Credentialing Organizations

American Tree Farm System

200 M St. NW, Suite 550

Washington, DC 20036

Tel.: 202-765-3660

www.treefarmssystem.org

Forest Stewardship Council U.S.

708 First St. North, Suite 235

Minneapolis, MN 55401

Tel.: 612-353-4511

us.fsc.org/en-us

Programme for the Endorsement of Forest Certification

Geneva, Switzerland

Tel.: +41-22-799-4540

www.pefc.org

Sustainable Forestry Initiative

2121 K St., NW, Suite 750

Washington, DC 20037

Tel.: 2002-596-3450

www.sfiprogram.org

U.S. Environmental Protection Agency

1200 Pennsylvania Ave., NW

Washington, DC 20460

Tel.: 202-272-0167

www.epa.gov

U.S. Green Building Council

2101 L St., NW, Suite 500

Washington, DC 20037

Tel.: 800-795-1747

new.usgbc.org/

University Research Centers

Center for Environment and Natural Resource Policy

University of Minnesota

St. Paul, MN 55108

Tel.: 612-624-7286

enrpolicy.forestry.umn.edu

Center for Forest Products Business

Virginia Tech

Blacksburg, VA 24061

Tel.: 540-231-7107

www.cfpb.vt.edu

Center for Intl. Trade in Forest Products

University of Washington

Seattle, WA 98195-2100

Tel.: 206-543-8684

www.cintrafor.org

Forest Products Development Center

Auburn University

School of Forestry & Wildlife Development

Auburn, AL 36849

Tel.: 334-844-4000

<https://wp.auburn.edu/forestproducts/>

Forest Products Management Development Institute

University of Minnesota

St. Paul, MN 55108

Tel.: 612-624-0770

fpmdi.bbe.umn.edu/

Forest and Wildlife Research Center

Mississippi State University

Starkville, MS 39759

Tel.: 662-325-2243

fwrc.msstate.edu

Louisiana Forest Products Development Center

Louisiana State University
School of Renewable Natural Resources
Baton Rouge, LA 70803
Tel.: 225-578-4527
www.lfpdc.lsu.edu

Natural Resources Research Institute

University of Minnesota
Duluth, MN 55811
Tel.: 218-720-4294
www.nrri.umn.edu

Olympic National Resources Center

University of Washington
Forks, WA 98331
Tel.: 360-374-3220
www.onrc.washington.edu

Sustainable Innovation Management

Virginia Tech
Blacksburg, VA 24061
Tel.: 540-231-7107
<http://sim.sbio.vt.edu>

Timber Mart – South Center for Forest Business

University of Georgia
Athens, GA 30602-2152
Tel.: 706-542-2832
www.tmart-south.com

Urban Forest Ecosystems Institute

California Polytechnic State University
San Luis Obispo, CA 93407
Tel.: 805-756-1111
ufei.calpoly.edu

Urban Wood Resources

Baltimore Wood Project

5523 Research Park Dr., Suite 350
Baltimore, MD 21228
Tel.: 914-403-8959
<http://baltimorewoodproject.org/>

Illinois Wood Utilization Team

<https://illinoisurbanwood.org/>

Michigan Urban Wood Network

<https://www.miurbanwoodnetwork.com/>

Treecycle America

10412 Rodney St.
Pineville, NC 28134
Tel.: 980-277-1140
<https://treecycleamerica.com/>

Urban Forest Ecosystems Institute

UFEI – NRES Department
Cal Poly State University
San Luis Obispo, CA 93407
<https://ufei.calpoly.edu/>

Urban, Salvaged, and Reclaimed Woods

6980 Camp Far West Rd.
Sheridan, CA 95681
Tel.: 530-682-6548
<https://urbansalvagedwoods.com/>

Urban Wood Network

Tel.: 906-875-3720
<http://urbanwoodnetwork.org/>

Virginia Urban Wood Group

900 Natural Resources Dr., Suite 800
Charlottesville, VA 22903
Tel.: 434-295-6401
<https://treesvirginia.org/outreach/virginia-urban-wood-group>

Wisconsin Urban Wood

Tel.: 608-622-7212
<http://wisconsinurbanwood.org/>

Appendix B: Organizations Assisting Exporters

This appendix details resources and institutions that facilitate international trade to and from the U.S. through a number of services, like loans and financial assistance, business relationships, strategy recommendations, and a variety of others. These institutions assist in general forest products export, like the Department of Commerce and the Export-Import Bank, as well as provide industry-specific resources, like the American Hardwood Export Council or Softwood Export Council.

U.S. Department of Commerce

The Department of Commerce runs a number of programs to generate economic growth and opportunities for U.S. businesses. The department has established a number of strategic goals, including initiatives to accelerate American leadership, create jobs, strengthen economic and national security, fulfill constitutional requirements, and deliver service excellence. <https://www.commerce.gov/>

U.S. Commercial Service

The Department of Commerce provides export assistance through the International Trade Administration, which in turn runs the U.S. Commercial Service. The Commercial Service promotes exports by U.S. small to medium sized businesses and helps to foster business relationships. <https://www.trade.gov/cs/>

International Trade Administration

The International Trade Administration seeks to strengthen U.S. competitiveness abroad through trade and investment. To do so, it operates in three units (Global Markets, Industry and Analysis, and Enforcement and Compliance) to provide services like counseling, advocacy, matchmaking services, market research, licensing, and certifications. <https://www.trade.gov/>

Export.gov

Export.gov is a website that assists in export planning, development, and execution. The International Trade Administration and 19 other U.S. government agencies collaboratively provide information for effective export from the U.S., such as export education, market identification, legal and financial considerations, logistics, and others. <https://www.export.gov/>

Small Business Administration

The Small Business Administration provides services to help launch, build, and grow U.S. businesses through direction in the form of business counseling, loan allocation, contracts, and others. <https://www.sba.gov/>

U.S. Economic Development Administration (EDA)

The EDA was established to drive economic development through innovation and competition, fostering sustainable job growth and strong regional economies. EDA programs are flexible and reactionary to changing economic trends and needs faced by local and state partners. <https://www.eda.gov/resources/>

Export-Import Bank of the United States (EXIM)

The EXIM stands as a figurehead of international trade assistance to and from the U.S., focusing on export assistance for domestic firms and providing important services, such as Export Credit Insurance and the Working Capital Loan Guarantee Program. <https://www.exim.gov/>

U.S. Department of Agriculture (USDA)

The USDA is an integral part of forest products export, as it administers phytosanitary certificates that eliminate the unintentional spread of pests globally and funds programs that assist in forest products export, a majority of which takes place through the Foreign Agriculture Service. <https://www.usda.gov/>

American Hardwood Export Council (AHEC)

The AHEC helps to promote U.S. hardwood products in over 50 export markets, as well as provides its members with resource databases, statistical reporting, overseas offices, trade show pavilions, trade shows, conventions, seminars, and a photo library to be used for marketing. <https://www.ahec.org/>

Softwood Export Council (SEC)

The SEC promotes the development of international markets for U.S. softwood products, often assisted by the USDA's Foreign Agriculture Service. The SEC is a combination of grading agencies, trade associations, and promotional agencies working to establish market opportunities for softwood products. <http://www.softwood.org/>

Appendix C: Business Etiquette

Appropriate business etiquette is vital for success and receptivity to your business propositions abroad. The following two sections, adapted from CT Business Travel’s (<https://www.ctbusinessstravel.co.uk/>) *Business Etiquette Around the World* infographic, highlight the variability between countries and note specific social cues and preferences to be aware of for introductions and meetings.

Introductions

First impressions set the stage for future business endeavors. This section highlights behaviors often overlooked, such as titles, dress code, and rituals.

Country	Handshake	How to address?	Dress code	Business cards
		First name vs Surname		
		Male / Female		
— Canada and the Americas —				
Brazil	Firm	Senhor / Senhora Silva	Sharp	No ritual
Canada	Firm	Liam / Olivia	Sharp	No ritual
U.S.	Firm	Noah / Sophia	Either	No ritual
— The Middle East —				
Israel ¹	Firm	Mr. / Ms. Cohen	Casual	Both hands
UAE	Firm	Sayed Mohammed / Sayeda Maryam	Sharp	Right hand
— Europe and Russia —				
Denmark	Firm	Herr / Fru Jensen	Sharp	No ritual
France ²	Light	Monsieur / Madame Martin	Sharp	No ritual
Germany	Firm	Herr / Frau Müller	Sharp	No ritual
Ireland	Firm	Jack / Emily	Sharp	No ritual
Russia ³	Firm	Gaspodin / Gaspazhah Smirnov	Sharp	No ritual
Spain	Firm	Señor / Señora Garcia	Sharp	No ritual
Sweden	Firm	Lucas / Elsa	Casual	No ritual
Switzerland	Firm	Mr. / Ms. Bianchi	Sharp	No ritual
U.K.	Firm	Mr. / Ms. Smith	Sharp	No ritual
— Asia and Australia —				
Australia	Firm	Jack / Charlotte	Sharp	No ritual
Hong Kong	Light	Mr. / Mrs. Wong ⁴	Sharp	Both hands
India	Firm, with Namaste	Mr. / Ms. Patel	Sharp	Both hands
Japan	Light	Sato san / Sato san	Sharp	Both hands
New Zealand	Firm	Mr. / Ms. Smith	Sharp	No ritual
South Korea	Light	Mr. / Ms. Kim ⁴	Sharp	Both hands
Taiwan	Light	Mr. / Ms. Tan ⁴	Sharp	Both hands

¹ Israel – The workweek is Sunday to Thursday.
² France – Apologizing for not being able to speak French may be a good start.
³ Russia – Too much smiling can be seen as being insincere.
⁴ In these countries, the surname comes before the given name.

Meeting Etiquette

After your initial introduction, the meeting must continue to go well to foster a successful relationship and accomplish the intended result. That said, you should have an understanding of cultural expectations and formalities overseas, for example, regarding small talk, agenda requirements, interruptions, and communications styles.

Country	Is pre-business chat customary?	If there is an agenda, do meetings stick to it?	Is interruption allowed?	What kind of communication style is the norm?*
— Canada and the Americas —				
Brazil	Yes	No	Yes	Direct
Canada	No	No	No	Indirect
U.S.	Minimal	No	No	Direct
— The Middle East —				
Israel	Yes	No	Yes	Direct
UAE	Yes	No	Yes	Indirect
— Europe and Russia —				
Denmark	Minimal	Yes	No	Direct
France	No	Yes	Yes	Direct
Germany	Minimal	Yes	No	Direct
Ireland	Minimal	Yes	No	Direct
Russia	No	No	Yes	Indirect
Spain	Yes	No	Yes	Indirect
Sweden	Minimal	Yes	No	Direct
Switzerland	No	Yes	No	Direct
U.K.	Minimal	Yes	No	Direct
— Asia and Australia —				
Australia	Minimal	Yes	No	Direct
Hong Kong	Yes	Yes	No	Indirect
India	Yes	No	Yes	Indirect
Japan	Yes	Yes	No	Indirect
New Zealand	Minimal	Yes	No	Direct
South Korea	Yes	No	No	Indirect
Taiwan	Yes	No	No	Indirect

* *Direct communication* – No need to read between the lines, communication is honest and blunt. *Indirect communication* – Avoiding tension with your business partner, often connected to the concept of “saving face,” or protecting another’s honor and self-esteem.

Appendix D: Trade Shows

To execute promotional strategies appropriately, you should explore domestic and international trade shows that provide opportunities to foster relationships and gauge the market, specifically looking for shows that fit your target market and demographics. A list of potential shows to explore is listed below; additional resources can be found via applicable forest products industry associations as well as other institutions. After determining an appropriate trade show to attend, you should set goals, locate funding, determine booth location, select and train staff, plan a positive attendee experience, leverage social media, collect contact information, and follow up on potential leads. To delve further into trade show importance and execution strategy, please revisit Chapter 2.

Trade Show	Country	Website
European Pellet Conference	Austria	http://www.wsed.at/en/programme/european-pellet-conference/
TECHNOMebel Exhibition	Bulgaria	http://www.technomebel.bg/
ABC FP Forestry Conference	Canada	https://abcfp.ca/WEB/ABC FP Conference
Canadian Woodlands Forum Spring/Fall Meeting(s)	Canada	http://cwfc.org/events/
COFI-Council of Forest Industries Annual Convention	Canada	http://www.cofi.org/
Decorative Hardwoods Association Spring Conference	Canada	https://www.decorativehardwoods.org/
Global Softwood Log & Lumber Conference	Canada	http://www.woodmarkets.com/
Montreal Wood Convention	Canada	http://montrealwoodconvention.com/en
Optisaw Mill Optimization & Automation Forum Optisaw West	Canada	http://www.optisaw.com/
Truck Loggers Association Annual Convention and Trade Show	Canada	https://www.tla.ca/convention/
Wood Design & Construction Solutions Conference	Canada	https://www.woodinnovatesbc.ca/
Woodworking Machinery and Supply Conference & Expo	Canada	www.WMSCanada.ca
Expocorma	Chile	http://www.expocorma.cl/
Wood South China	China	http://www.a1shows.com/wood-south-china
WOOD-TEC International Fair for Wood and Furniture Industry	Czech Republic	http://www.bvv.cz/en/wood-tec/
Woodtec	Estonia	http://www.fair.ee/instrutec/
Forest Fair Helsinki	Finland	https://meidanniikonloppu.messukeskus.com/?lang=en/
Interzum	Germany	https://www.interzum.com/

Trade Show	Country	Website
Ligna Hannover: World Trade Fair	Germany	https://www.ligna.de/home
Zellcheming Expo	Germany	https://zex.mesago.com/frankfurt/en.html
Tissue World	Italy	http://www.tissueworld.com/en/
Nature Expo 2017	Latvia	http://www.bt1.lv/darzs/
Las-Expo Kielce	Poland	https://www.targikielce.pl/las-expo
Targi Kielce	Poland	http://www.targikielce.pl/en/
Tekhnodrev Far East	Russia	http://restec-expo.ru/en/
Tekhondrev International Specialized Exhibition	Russia	http://10times.com/tekhnodrev/
Woodex Moscow	Russia	http://woodexpo.ru/Home
Elmia Wood Forestry Fair	Sweden	http://www.elmia.se/en/wood/
Mila Lantbruksmässan	Sweden	http://milamassan.se/
Nordic Wood Biorefinery Conference (NWBC)	Sweden	https://www.ri.se/en/nwbc-2020
Forest Investment Conference	U.K.	http://www.risiinfo.com/events/
Timber Expo	U.K.	https://www.ukconstructionweek.com/
American Wood Protection Association Meeting	U.S.	http://www.awpa.com/meetings/annual/
APA & EWTA Info Fair	U.S.	http://www.engineeredwood.org/info-fair/
AWFS Woodworking Fair	U.S.	http://awfsfair.org/
Forest Products Machinery and Equipment EXPO-SEPA	U.S.	http://www.sfpexpo.com/
Forest Products Society International Convention	U.S.	http://www.forestprod.org/ic/
Forest Resources Association Annual Meeting	U.S.	http://www.forestresources.org/
Intermountain Logging Conference and Equipment Show	U.S.	http://intermountainlogging.org/
International Builders' Show	U.S.	http://www.buildersshow.com/
International Conference on Wood Adhesives	U.S.	http://woodadhesives.forestprod.org/
International Society of Wood Science and Technology International Convention	U.S.	https://www.swst.org/wp/
International Wood Products Association World of Wood Convention	U.S.	https://www.iwpawood.org/mpage/homepage
International Woodworking Fair (IWF)	U.S.	http://www.iwfatlanta.com/
Lumber and Building Material Expo	U.S.	https://expo.nrla.org/

Trade Show	Country	Website
Lumbermen's Association of Texas & Louisiana Meeting	U.S.	http://www.lat.org/annual-convention/
Mass Timber Conference	U.S.	http://www.masstimberconference.com/
Mississippi Lumber Manufacturers Association	U.S.	http://www.mlmalumber.com/
National Hardwood Lumber Association Convention	U.S.	https://www.nhla.com/nhla-convention/
National Wooden Pallet and Container Association Conference	U.S.	http://www.palletcentral.com/?page=annualconference/
North American Forest Products Conference	U.S.	http://events.risiinfo.com/north-american-conference/
Northeast Forest Products Equipment Expo	U.S.	http://www.northernlogger.com/
Oregon Logging Annual Conference	U.S.	http://www.oregonloggingconference.com/
Pacific Logging Congress	U.S.	http://www.pacificloggingcongress.org/
Pulp, Paper and Forest Industry Technical Conference	U.S.	http://pulppaper.org/
Sierra-Cascade Logging Conference	U.S.	https://www.sclcxpo.com/
Society of American Foresters National Convention	U.S.	https://www.eforester.org/safconvention
Southeastern Lumber Manufacturer's Association Meeting	U.S.	http://www.slma.org/
Timber Processing and Energy Expo	U.S.	http://www.timberprocessingandenergyexpo.com/
Timber Show Forest Products Equipment Exposition	U.S.	http://patimbershow.cas.psu.edu/
WIC Annual Woodworking Industry Conference	U.S.	http://www.wmma.org/events/index.cfm/
Dubai WoodShow	UAE	https://www.woodshowglobal.com/dubai
International Woodfiber Resource and Trade Conference	Vietnam	http://events.risiinfo.com/wood-fiber/

Appendix E: Sample Export Documentation

Sample export documentation included in this appendix was generated by the International Trade Administration and published online as export documentation templates and in Barry, D., ed. 2015. A Basic Guide to Exporting. 11th ed. Washington, DC: U.S. Department of Commerce, Commercial Service. 250 p.

Pro Forma Invoice

PROFORMA INVOICE

<i>Export References:</i>		<i>Expiration Date:</i>		
<i>Exporter Name and Address:</i>	<i>Ultimate Consignee Name and Address:</i>	<i>Sold To Name and Address:</i>		
<i>Intermediate Consignee/Consigned to:</i>	<i>Notify Party Name and Address:</i>	<i>Date of Shipment:</i> <i>AWB/BL Number:</i> <i>Currency:</i> <i>Letter of Credit Number:</i>		
<i>Conditions of Sale and Terms of Payment:</i> <i>Freight (please mark): Pre-paid __ Collect __</i> <i>Title Transfer Occurs At:</i> <i>Payment Terms:</i>	<i>Transportation method:</i> <i>Via:</i> <i>From:</i>	<i>Total Number of Packages:</i> <i>Total Net Weight (kgs):</i> <i>Total Gross Weight (kgs):</i>		
<i>Item Number, Product Description, Tariff Classification Number, Country of Origin</i>		<i>Quantity</i>	<i>Unit Price</i>	<i>Total Price</i>
<i>Please Note: These commodities, technology, or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law prohibited.</i>				
<i>Authorized Signature:</i>		<i>Company:</i>		
<i>Name:</i>		<i>Title:</i>		
<i>Date:</i>	<i>E-mail:</i>	<i>Telephone Number(s)</i> <i>Voice:</i> <i>Facsimile:</i>		

This invoice is for export/import purposes only and not intended for payment purposes.

Letter of Credit

INTERNATIONAL BANKING GROUP		ORIGINAL
Bizbank Corporation		
P.O. BOX 1000, ATLANTA GEORGIA 30302-1000		
CABLE ADDRESS: BizbC		
TELEX NO. 1234567		
SWIFT NO. BBZABC 72		
OUR ADVICE NUMBER: EA0000091	****AMOUNT****	
ADVICE DATE: 08MAR2006	USD****25,000.00	
ISSUE BANK REF: 3312/HBI/22341		
EXPIRY DATE: 23JUN2006		
BENEFICIARY:	APPLICANT:	
THE WALTON SUPPLY CO.	HHB HONG KONG	
2356 SOUTH N.W. STREET	34 INDUSTRIAL DRIVE	
ATLANTA, GEORGIA 30345	CENTRAL, HONG KONG	
WE HAVE BEEN REQUESTED TO ADVISE TO YOU THE FOLLOWING LETTER OF CREDIT AS ISSUED BY:		
THIRD HONG KONG BANK		
1 CENTRAL TOWER		
HONG KONG		
PLEASE BE GUIDED BY ITS TERMS AND CONDITIONS AND BY THE FOLLOWING:		
CREDIT IS AVAILABLE BY NEGOTIATION OF YOUR DRAFT(S) IN DUPLICATE AT SIGHT FOR 100 PERCENT OF INVOICE VALUE DRAWN ON US ACCOMPANIED BY THE FOLLOWING DOCUMENTS:		
1. SIGNED COMMERCIAL INVOICE IN 1 ORIGINAL AND 3 COPIES.		
2. FULL SET 3/3 OCEAN BILLS OF LADING CONSIGNED TO THE ORDER OF THIRD HONG KONG BANK, HONG KONG NOTIFY APPLICANT AND MARKED FREIGHT COLLECT.		
3. PACKING LIST IN 2 COPIES.		
EVIDENCING SHIPMENT OF : 5000 PINE LOGS—WHOLE—8 TO 12 FEET		
FOB SAVANNAH, GEORGIA		
SHIPMENT FROM : SAVANNAH, GEORGIA	TO: HONG KONG	
LATEST SHIPPING DATE : 02JUN2006		
PARTIAL SHIPMENTS NOT ALLOWED	TRANSSHIPMENT NOT ALLOWED	
ALL BANKING CHARGES OUTSIDE HONG KONG ARE FOR BENEFICIARY'S ACCOUNT.		
DOCUMENTS MUST BE PRESENTED WITHIN 21 DAYS FROM B/L DATE.		
AT THE REQUEST OF OUR CORRESPONDENT, WE CONFIRM THIS CREDIT AND ALSO ENGAGE WITH YOU THAT ALL DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT WILL BE DULY HONORED BY US.		
PLEASE EXAMINE THIS INSTRUMENT CAREFULLY. IF YOU ARE UNABLE TO COMPLY WITH THE TERMS OR CONDITIONS, PLEASE COMMUNICATE WITH YOUR BUYER TO ARRANGE FOR AN AMENDMENT.		

Electronic Export Information Filing

This document can be filed using the U.S. Department of Homeland Security's Customs and Border Protection *Automated Commercial Environment Secure Data Portal* at <https://ace.cbp.dhs.gov/>.

Packing List

Packing List														
Shipper/ Exporter:			Ultimate Consignee:			Bill To:			Intermediate Consignee					
Commercial Invoice No.: Order No.:			Total number of Packages: Total Gross Weight (Lbs): Total Gross Weight (Kgs): Total Net Weight (Lbs): Total net Weight (Kgs): Total Cubic Feet: Total Cubic Meters:			Transportation: Conditions of Sale and Terms of Payment: CPT								
Shipment Line No.	Item Number	Item Description, Sales Order No., Customer PO No.	Shipped Quantity	Packaging Type	Dimensions								Per package gross weight	
					Inches			centimeters					LBS.	KGS.
L	W	H	L	W	H	L	W	H	L	W	H			
Country of Origin: Marks:														

Note: These commodities, Technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Signature: _____ Date:

Certificate of Origin

CERTIFICATE OF ORIGIN									
Shipper/exporter (name and address including zip code):		Booking/shipment number:		B/L or AWB number:					
		Export references:							
Consignee (name and address):		Forwarding agent (name and address - references):							
Intermediate consignee/notify party (name and address):		Point (state and country) of origin:							
		Domestic routing / export instructions:							
Pre-carriage by:		Place of receipt:							
Exporting carrier:		Port of loading/export:		Transportation method:					
Foreign port of unloading (vessel and air only):		Place of delivery by on-carrier:		Containerized (vessel only): YES NO					
Container No. / Seal No. / Marks and Numbers:		Number of Packages:		Description of commodities, Model/Serial number, harmonized number		Gross weight (kg):		Measurement	

Phytosanitary Certificate

No Phytosanitary Export Certificate can be issued until an application is completed (7 CFR 353).
FORM APPROVED OMB NO. 0579-0052

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0052. The time required to complete this information collection is estimated to average .25 minutes/hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

<div>U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE PLANT PROTECTION AND QUARANTINE</div> <div>APPLICATION FOR INSPECTION AND CERTIFICATION OF DOMESTIC PLANTS AND PLANT PRODUCTS FOR EXPORT</div>		<div>INSTRUCTIONS: APPLICANT - Forward original to the Officer in Charge where inspections, treatment, and certification will be given (Item 4). Complete items 1 thru 11. OFFICER - Complete items 12 thru 17.</div>	
1. NAME AND ADDRESS OF EXPORTER		3. NAME AND ADDRESS OF APPLICANT (or exporters agent)	
		AREA CODE AND PHONE NO.	
2. NAME AND ADDRESS OF FOREIGN CONSIGNEE		4. PLACE WHERE ARTICLES WILL BE MADE AVAILABLE FOR INSPECTION AND/OR TREATMENT AND CERTIFICATION(Port and location)	
		5. APPROX. DATE OF DEPARTURE	6. PORT OF EXPORT
7. DESCRIPTION OF ARTICLES TO BE CERTIFIED			
a.	QUANTITY AND NAME OF PRODUCE AND BOTANICAL NAME		
b.	NUMBER AND DESCRIPTION OF PACKAGES		
c.	DISTINGUISHING MARKS		
d.	CERTIFIED ORIGIN		
8. DECLARED MEANS OF CONVEYANCE		I certify that the origin (place where grown) of the articles listed is as represented.	
9. DECLARED POINT OF ENTRY		10. SIGNATURE (applicant or exporters agents)	11. DATE
EXPORT INSPECTION DATA - (To be filled in by Plant Protection and Quarantine Officer)			
12. LOCATION OF ARTICLES		13. % OF MATERIALS EXAMINED	14. % OF MATERIALS INFESTED
15. FINDINGS AND/OR TREATMENT GIVEN (Use reverse if necessary)			
16. SIGNATURE			17. DATE AND TIME INSPECTED

PPQ FORM 572
(APR 2005)

Sample Insurance Certificate

ORIGINAL

OPEN POLICY NO.

CERTIFICATE NO.

A2310

2952305

FOREMAN'S FUND INSURANCE COMPANY
SAN FRANCISCO, CALIFORNIA
ATLANTIC DIVISION, 110 WILLIAM STREET
NEW YORK, NEW YORK 10038

\$125,000.000

The company named above in consideration of premium in the amount of and at rates as arranged and subject to the Conditions and Warranties specified and/or attached hereto, does by this policy insure

ASSURED

Metalworking Machines, Inc.

as well in their own name as in that of those to whomsoever the subject matter of this Policy does, may, or shall appertain.

IN THE SUM OF

One hundred twenty-five thousand and 00/100-----

UPON

steel grinders with accessories

CONTAINER-HOUSE/HOUSE ☐
CONTAINER-PORT/PORT ☐
CONTAINER-OTHER ☐
NON-CONTAINER ☐

VALUED AT SUM OR SUMS INSURED

LADEN (UNDER DECK) ON BOARD THE VESSEL/AIRLINE:

S/L Adventurer

B/L OR SAILING DATE: 9-30-2006

(LOST OR NOT LOST) AT AND FROM (INITIAL POINT/PORT):

Interior USA via Baltimore

TO (FINAL POINT/PORT):

Taipei Taiwan via Kaoshiung

LOSS IF ANY PAYABLE TO THE ORDER OF THE ASSURED AT:

destination

Inured against all risks of physical loss or damage from any external cause irrespective of percentage, but excluding the risks excluded by the "F.C.&S." and/or "S.R.&C.C." warranties on the reverse side of this policy except to the extent that such risks may be specifically covered by endorsement also warranted free from any claim arising out of the inherent price of the goods insured or consequent upon loss of time or market.

This insurance attaches from the time the goods leave the warehouse at the place named in the policy for the commencement of the transit and continues during the ordinary course of transit until the goods are delivered to the final warehouse at the destination named in the policy.

It is a condition of this insurance that there shall be no interruption or suspension of transit unless due to circumstances beyond the control of the Assured.

The risks covered by this policy include loss, damage, or expense resulting from explosion howsoever or wheresoever occurring, irrespective of percentage, but it is especially understood and agreed that this wording is not intended to cover any of the risks excluded by the F.C.&S. and/or S.R.&C.C. Warranties set forth elsewhere in the policy.

In the event of the vessel, wharf, warehouse, conveyance, or other cargo being fumigated by order of property constituted authority and damage arises therefrom to the goods insured hereunder, this Company agrees to indemnify the Assured for such damage irrespective of percentage.

General Average and Salvage Charges payable according to United States laws and usage and/or as per Foreign Statement and/or as per York-Antwerp Rules (as prescribed in whole or in part) in accordance with the Contract of Affreightment.

In cases of any loss or misfortune, it shall be lawful and necessary for the Assured, his or their factors, servants and assigns, to sue, labor, and travel for, in, and about the defense, safeguard, and recovery of the interest insured, or any part thereof, without prejudice to this insurance; to the charges whereof this Company shall contribute according to the rate and quantity of the sum hereby insured; nor shall the acts of the Assured or the Company in recovering, saving, or preserving the property insured, in case of disaster, be considered as a waiver or acceptance of abandonment.

In case of any agreement, act, or omission of the Assured, prior or subsequent to loss, whereby any right of recovery of the Assured for loss or damage to any property insured hereunder against any Carrier or Bailee, is released, impaired, or lost, which would on acceptance of abandonment or payment of loss by this Company have insured to its benefit, but for such agreement, act, or omission, this Company shall pay for the loss only to the extent its right of recovery was not released, impaired, or lost.

This insurance is subject to the American Institute Marine Extension Clauses (1943) and the following American Institute Clauses as if the current form of each were endorsed hereon:

South America 60-Day Clause

S.R.&C.C. Endorsement

War Risk Insurance

It is hereby understood and agreed that in case of loss and damage to the property insured under this policy, same shall be immediately reported as soon as the goods are landed, or the loss is known or expected, to the nearest agent of this Company as designated on the reverse side hereto.

(See reverse side for further terms and conditions which are hereby made a part of this Policy.)

NOTE--It is necessary for the assured to give prompt notice to underwriters when he becomes aware of an event for which he is "held covered" under this policy and the right to such cover is dependent on compliance with this obligation.

In witness whereof the company named above has caused this policy to be signed by its duly authorized officers, but this policy shall not be valid unless countersigned by an authorized representative of this Company or the Assured.

Secretary

President

Endorsement -

Counteragreed at

Baltimore MD

9-30-2006

Date

Shipper’s Letter of Instruction

1a. EXPORTER (Name and address including ZIP code)				SHIPPER: PLEASE BE SURE TO COMPLETE ALL SHADED AREAS.							
			ZIP CODE								
b. EXPORTER'S EIN (IRS) NO.		c. PARTIES TO TRANSACTION <input type="checkbox"/> Related <input type="checkbox"/> Non-related									
4a. ULTIMATE CONSIGNEE											
b. INTERMEDIATE CONSIGNEE											
5. FORWARDING AGENT											
8. LOADING PIER (Vessel only)				9. MODE of TRANSPORT (Specify)		6. POINT (STATE) OF ORIGIN OR FTZ NO		7. COUNTRY OF ULTIMATE DESTINATION			
10. EXPORTING CARRIER				11. PORT OF EXPORT		SHIPPER MUST CHECK <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT C.O.D. \$ <input type="checkbox"/> AIR <input type="checkbox"/> OCEAN <input type="checkbox"/> CONSOLIDATE <input type="checkbox"/> DIRECT SHIPPER'S INSTRUCTIONS IN CASE OF INABILITY TO DELIVER CONSIGNMENT AS ASSIGNET <input type="checkbox"/> ABANDON <input type="checkbox"/> RETURN TO SHIPPER <input type="checkbox"/> DELIVER TO					
12. PORT OF UNLOADING (Vessel and air only)		13. CONTAINERIZED (Vessel only) <input type="checkbox"/> Yes <input type="checkbox"/> No									
SHIPPER REQUESTS INSURANCE <input type="checkbox"/> No <input type="checkbox"/> Yes \$											
14. SCHEDULE B DESCRIPTION OF COMMODITIES				15. MARKS, NOS., AND KINDS OF PACKAGES				SHIPPER'S REF. NO.		DATE	VALUE (U.S. dollars, omit c (Selling price or cost sold) (20)
D/F (16)	SCHEDULE B NUMBER (17)	CHECK DIGIT	QUANTITY - Schedule B Unit (s) (18)	SHIPPING WEIGHT (kg) (19)	SHIPPER'S NOTE: IF YOU ARE UNCERTAIN OF THE SCHEDULE B COM-MODITY NO. DO NOT TYPE IT IN - WE WILL COMPLETE WHEN PROCESSING THE 7525V. WE HAVE FORWARDED TO YOU, THE SHIPMENT DESCRIBED BE-Low VIA: <input type="checkbox"/> YOUR TRUCK, OR <input type="checkbox"/> OTHER CARRIER (LISTED BELOW) TRUCK LINE NAME _____ RECEIPT (PRO) NUMBER _____ DECLARED VALUE FOR CARRIAGE \$ _____						
21. VALIDATED LICENSE NO./GENERAL LICENSE SYMBOL			22. ECCN (When required)		PLEASE SIGN THE FIRST EXPORT DECLARATION BOX 23 WITH PEN AND INK.						
23. Duly authorized officer or employee		The exporter authorizes the forwarder named above to act as forwarding agent for export control and customs purposes.			DOCUMENTS ENCLOSED:						
24. I certify that all statements made and all information contained herein are true and correct and that I have read and understand the instructions for preparation of this document, set forth in the „CORRECT WAY TO FILL OUT THE SHIPPER'S EXPORT DECLARATION.“ I understand that civil and criminal penalties, including forfeiture and sale, may be imposed for making false or fraudulent statements herein, failing to provide the requested information or for violation of U.S. law on exportation (13 U.S.C. Sec. 305; 22 U.S.C. Sec. 401; 18 U.S.C. Sec. 1001; 50 U.S.C. App. 2410).					SPECIAL INSTRUCTIONS: Value listed is reportable amount for SED Please notify _____ if there are any problems with this shipment. Phone: Fax: E-Mail:						
SIGNATURE		CONFIDENTIAL - For use solely for official purposes authorized by the Secretary of Commerce (13 U.S.C. 301 (g)).									
TITLE		Export shipments are subject to inspection by U.S. Customs Service and/or Office of Export Enforcement.									
DATE		25. AUTHENTICATION (When required)									

NOTE: The shipper of his Authorized Agent hereby authorizes the above named Company, in his name and on behalf, to prepare any export documents, to sign and accept any documents relating to said shipment and forward this shipment in accordance with the conditions of carriage and the tariffs of the carriers employed. The shipper guarantees payment of all collect charges in the event the consignee refuses payment. Hereunder the sole responsibility of the Company is to use reasonable care in the selection of carriers, forwarders, agents and others to whom it may entrust the shipment.

Because a bill of lading establishes the contract terms between the exporting and importing firms, it will be detailed with specific instructions (see following page).

RECEIVED, subject to the classifications and tariffs effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents are at shipper's risk) and free from all claims, liens or other encumbrances, to the consignee named herein, who shall be deemed to have accepted the same in conformity with the bill of lading presented by the carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry it to its usual place of delivery at said destination, if, on its route, there is no through bill of lading covering the entire route.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said tariffs and conditions are hereby agreed to by the shipper and accepted for him by the carrier.

Form No. 35-644 Printed and Sold by **UNZCO** 201 Circle Drive N. Suite 104, Piscataway, N.J. 08854 (800) 631-3098 www.unzco.com

Straight Bill of Lading—Instructions

1. Shipper (From)—Enter the company name and address of the shipper (consignor).
2. Point of Origin (At)—Enter the city and state of the actual shipping point.
3. Date of Shipment—Enter the date of the shipment, the date the carrier took control of the merchandise.
4. Truck/Freight—check the “Truck” block if shipment is to move by truck, or the “Freight” block if the shipment is to move by rail.
5. Shipper’s No.—Enter a unique control number to reference the shipment with the carrier.
6. Carrier—Enter the name of the company that will take initial control of the shipment and cause its delivery to the consignee.
7. Agent’s No.—Enter carrier’s control number, if known or required.
8. Consigned to—Enter the full name of the final recipient of the shipment, the ultimate consignee; also enter the mailing or street address of the ultimate consignee, if different than destination, for carrier notification purposes.
9. Destination—Enter the street address, city, and ZIP code where the carrier will make delivery to the Consignee in Field 8.
10. Route—If applicable, enter the route the carrier will take to the consignee. This Field may also be used to specify docks, warehouses, etc., and to specify any intermediate carriers.
11. Delivering Carrier—If applicable, specify the carrier that will deliver the shipment to the ultimate consignee at the destination, but only if different than the carrier entered in Field 6.
12. Vehicle/Car No.—Enter any vehicle identifying numbers or initials, if applicable.
13. No. Packages—Enter the total number of packages per line item; if the packages are consolidated on a pallet or in an outer container, note this information on a second line. For example: 112 PKGS 3 Pall.
14. Description of Shipment—Enter the description of each line item, noting the type of package (carton, barrel, etc.) and the quantity per package. Since the correct freight classification is essential in describing an item, there must be a separate line item for each different freight classification description. If more than one type of packaging is used per freight classification, a separate entry must be used for each type of package. Enter any special package markings, special handling requirements, and delivery instructions. Note: For hazardous material items, special provisions must be met in completing this field.
15. Weight—Enter the total gross weight, in pounds, for each line item. For bulk shipments, the TARE and net weights should also be referenced in the description field. For package shipments, include the weights of pallets and skids. The total weight of the merchandise should be shown after the last line item, with pallet and dunnage weights shown separately.
16. Class or Rate—Enter either the five-digit class (per the Uniform Freight Classification) or the National Motor Freight Classification) or a two-digit class rate (a percentage of the first class 100 rate) per line item. This information may be determined by contacting the carrier.
17. Without Recourse—Per standard bill of lading terms, the shipper is ultimately liable for freight charges, even when the shipment is sent on a collect basis to the consignee. By signing this statement, the shipper is released from the liability of freight charges for collect shipments delivered by the carrier to the consignee without the carrier’s collecting the freight charges. For prepaid shipments, leave blank.
18. Prepaid Shipments—Enter “Prepaid” if shipment is to be paid for by the shipper. If this field is left blank, the carrier will seek to collect the freight charges from the consignee (see Field 17).
19. Prepayments Received—Carrier enters any payments received in advance from the shipper for the shipment.
20. Charges Advanced—Carrier enters any advanced charges for the shipment, if applicable.
21. C.O.D. Shipment—First, check whether the freight charges are prepaid (the carrier bills the shipper) or collect (the carrier deducts the freight charges from the amount collected from the consignee). Second, enter the amount to be collected for the merchandise itself—be sure to include the freight charges. Third, enter any collection fees, if applicable. Enter total charges to be collected by carrier.
22. Shipment Declared Value—When the weight charged by the carrier is dependent upon the value of the shipment, the dollar value per unit of measure (for example, \$100.00/pound) must be stated by the shipper— enter this information in Field 14.
23. Shipper—Enter the company name of the shipper.
24. Shipper’s Agent—Enter the signature of the individual preparing the shipment for the shipper.
25. Carrier’s Agent—The carrier’s agent will sign here prior to taking control of the shipment.
26. Permanent Address—Enter the permanent (business) mailing address of the shipper. This may be the same as for Field 1.
27. Certification—A signature is required by the U.S. Department of Transportation after this statement for all shipments of hazardous material.



International markets provide opportunities for companies to diversify their customer base and increase profits. Growing economies and improved technology now allow even the smallest of firms to compete globally. This guide helps companies evaluate whether they can and should enter these new markets. From market identification to logistical issues to developing an international marketing plan, this guide is intended to help companies make this strategic decision.