Richard Vlosky[1], Rado Gazo[2], Daniel Cassens[2], Priyan Perera[3]

Changes in value-added wood product manufacturer perceptions about certification in the United States from 2002 to 2008

Promjene shvaćanja postupka certificiranja proizvođača finalnih proizvoda od drva u Sjedinjenim Američkim Državama od 2002. do 2008. godine

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ABSTRACT • *Certification is a voluntary mechanism which involves assessing either forest management practices or chain-of-custody tracking through supply chains against a set of standards. Certification is becoming an important market requirement particularly in value-added wood product sectors such as furniture, flooring and millwork. In 2002 and 2008 we conducted national studies in the United States to identify value-added wood industry perspectives and participation in certification and to see what has changed in the industry in the past 6 years. Results show that certification continues to be an important issue for the value-added wood products sector in the U.S. Certification awareness and participation have increased significantly from 2002-2008. The percent of respondents receiving premiums for certified products has increased significantly from 2002-2008 and the percent of respondents incurring [non-raw material] costs for certified wood raw materials declined. Finally, 97% of respondents in 2008 said that they will continue to sell certified wood products in the future.*

Keywords: *certification, United States, wood products, value-added, manufacturers*

SAŽETAK • *Certificiranje je dobrovoljni postupak koji je ocjena poslovanja u šumarstvu ili ocjena zaštite u lancu nabave prema određenim standardima. Certificiranje je postalo jedan od važnih tržišnih zahtjeva posebno u granama koje stvaraju drvne proizvode visoke dodane vrijednosti, kao što su namještaj, podovi i pilanski proizvodi. U radu su uspoređene studije iz 2002. i 2008. godine, provedene u Sjedinjenim Američkim Državama, kako bi se utvrdila perspektiva i sudjelovanje finalne drvne idustrije u certificiranju te kako bi se utvrdile promjene nastale u*

[1] Author is director and professor at Louisiana Forest Products Development Center, School of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, Louisiana. [2]Authors are professor at Department of Wood Processing – Industrial Engineering, Purdue University, West Lafayette, Indiana. [3]Author is PhD candidate at Forest Products Marketing Program, School of Renewable Natural Resources, Louisiana State University, Baton Rouge, Louisiana.

[1] Autor je ravnatelj i profesor u Centru za razvoj šumskih proizvoda, Školi za obnoviljive prirodne resurse i Poljoprivrednom centru Sveučilišta u Louisiani, Baton Rouge, Louisiana. [2] Autori su profesori na Zavodu za obradu drva i industrijske tehnike na Purdue Sveučilištu, Zapadni Lafayette, Indiana. [3]Autor je doktorant na programu *Marketing šumskih proizvoda* u Školi za obnovljive prirodne resurse, Baton Rouge, Louisiana.

navedenom razdoblju. Dobiveni su rezultati pokazali da u Sjedinjenim Američkim Državama certificiranje sve više postaje važna značajka za finalnu drvnu industriju. Pri usporedbi 2002. i 2008. uočava se da su informiranost i sudjelovanje u certificiranjau znatno porasli. Postotak tvrtki koje dobivaju poticajna sredstva za certificiranje proizvoda uvelike je porastao od 2002. do 2008. godine, dok se smanjio postotak tvrtki kojima je certificiranje sirovine povećalo troškove. Pritom se 97% ispitanika izjasnilo da će i u budućnosti nastaviti prodavati certificirane drvne proizvode.

Ključne riječi: *certificiranje, Sjedinjene Američke Države, drvni proizvodi, dodana vrijednost, proizvođači*

1 INTRODUCTION
1. UVOD

Forest certification is a voluntary mechanism which involves assessing forest management practices against a set of well-defined standards, often by an independent certification body (Baharuddin and Simula 1994). It also provides credible evidence to customers that the product they purchase is originated from an environmentally friendly source. The goal of forest certification is to reward sustainable forestry practices by providing market based incentives to participating firms/individuals (Upton and Bass, 1996). With rapidly growing concerns over environment and natural forests resources, the global timber market is shaping up to accommodate new market conditions, and forest certification is increasingly becoming a market requirement (Ratnasingam *et al*, 2008). As a result of this emerging market trend, "green procurement"– the sustainable acquisition of materials is experiencing a boom in numerous sectors and, demand for certified wood and paper products is on the rise (PEFC, 2008).

Forest certification is here to stay. The area of certified forests in the world grew by 8.8% from mid-2007 to mid-2008, reaching 320 million hectares and, this accounts for approximately 13% of the world's managed forests (UNECE/FAO, 2008). Sustainable Forestry Initiative (SFI), the leading independent certifier in North America has certified over 53 million acres in the U.S. and 143 million acres of forestland across North America (SFI, 2008), while FSC had certified over 23 million forest acres in the U.S. and 250 million acres worldwide, by the end of 2007 (FSC, 2008). Meanwhile, leading certifiers also claim that the number of Chain of Custody (CoC) certificates issued to forest based industries is also on the rise (SFI, 2008; FSC, 2008). CoC certificates obtained by forest based industries from 2006 to 2007 increased by 50%, globally (UNECE/FAO, 2008).

Numerous studies have attempted to determine U.S. consumer preference for certified forest products and, evidence suggests that consumer preference for certified products and understanding on certification concepts are growing. For instance, a comparative study by Ozanne and Vlosky (2003) on the U.S. consumer perspective on certification shows that overall consumer understanding of certification concepts has increased. Anderson and Hansen (2004) in their study on the impact of certification on preferences for wood furniture concluded that environmental certification is a favorable product attribute prioritize by customers. However, the study also revealed that for the typical respondent customer, the importance of other product attributes outweighed that of certification.

Certification is becoming an important market requirement particularly in value-added wood products sector. In literature, the definition on what constitute value-added wood products is vague. Industry observers broadly categorize wood products into primary and secondary wood products. Most value-added wood products fall into secondary wood products category. These vary from products with the highest value such as furniture, flooring, kitchen cabinets, doors and windows, millwork or specialized paneling to highly sophisticated engineered wood and pre-fabricated housing and building materials (Schrier, 2003). Some argue that value can be added to wood and at various levels of processing. For instance, value can be added to a log by properly cutting to the correct length so more product can be produced from straighter, less tapered material (DeHoop *et al*, 2002). Regardless of how it defines, value-added wood products sector plays a key role in the U.S. economy with U.S. being one of the largest consumers of value-added wood products in the world (UNECE/FAO, 2008).

Demand for value added certified wood products come from different channels. "Green building" is one such channel where a huge demand is coming from and, statistics show that there's a tremendous surge in green construction in the U.S. housing market (McGraw-Hill Construction, 2008). With the weakening U.S. economy, house values have declined by 21.1% since the peak in June 2006 and, housing starts are expected to remain weak into the second half of 2009 (Eastin, 2008). According to the Engineered Wood Association (2009), the annualized rate of housing starts declined rapidly from 824 000 units in September to 771 000 units in October to 625 000 in November 2008, leaving new housing starts at a record low. Despite the market downturn and unfavorable economic background, green building sector rocketed from $10 billion to $60 billion industry within merely 5 years (McGraw-Hill Construction, 2008). The "Green Outlook 2009" published by McGraw-Hill Construction (2009) further predicts today's overall green building market to more than double, reaching between $96 -$140 billion by 1013. The report further attributes the expansion of green building to numerous factors including growing public awareness of green practices, increased government interventions, and recognition by owners of the bottom line advantages.

The booming green building industry has lead to a proliferation of green rating systems in the U.S. At present, there are two leading national residential rating systems; NAHB National Green Building Program and LEED. Green Globes and LEED are the two leading Commercial Rating Systems. In addition, there are at least 32 local and regional green rating systems across the U.S. at present (Eastin, 2008). In a survey conducted to determine certified wood use in residential constructions in the U.S., Eastin (2008) found that a substantial number of builders are already using certified lumber with certified wood use being highest in western states. The study observes that use of certified lumber would increase in the future across all regions of the U.S. with possible price premiums for green housing constructions. If this trend continues, the demand for certified wood products would increase significantly and the impact will trickle down the value chain.

Repair and remodel applications of wood sold primarily through home-centers account for the second largest demand market, hence they are the primary driver of certification from the demand perspective in the U.S. (Perera *et al*, 2008). According to the U.S. Census Bureau of the Department of Commerce (2008), expenditures for improvements and repairs of residential properties in 2007 were estimated at $226.4 billion. Leading home center retailers such as Lowe's and Home Depot jointly account for a greater market share in remodeling market, have already committed to providing certified forest products to consumers. For instance, Home Depot's wood purchasing policy give preference to wood and wood products originating from well managed forests whenever feasible. A recent survey (Perera *et al*, 2008) of the top 500 U.S. home-center retailers revealed that only a few companies so far have entered the certified products market, however these companies included the market leaders. Certification/eco- labeling was given a low priority by leading home center retailers in selecting wood products suppliers. Results further suggest that factors such as improving company image and preexisting certified suppliers are the main reasons for companies to enter the certified market rather than price premiums.

Retail expenditure on furniture by U.S. consumers has also shown a gradual increase over the years. Three primary sectors can be identified in the U.S. furniture manufacture; integrated manufacturers of either household or office furniture, assemblers of pre-cut wood household or upholstered furniture, and niche producers (U.S. International Trade Commission, 2004). Household furniture goes to the final consumer through variety of channels where top hundred furniture retailers channel being the dominant accounting for over 19 % of the total distribution (Vlosky, 2005). However, the domestic furniture industry continues to lose its market share to imports especially from countries like China, Canada, Malaysia and Vietnam (Vlosky, 2005).

Wooden flooring is another value-added wood product category that showed a significant growth in the recent past. With the introduction of engineered and pre-finished floors which make installation easy and cost-effective, hardwood floors are rapidly becoming 'DIY' remodeling projects. The U.S. hardwood flooring sales tallied to $2.5 billion in 2005 while laminate flooring sales were estimated at $1.5 billion (Ekström and Goetzl, 2007). The U.S. wood flooring market is expected to grow at a compound annual rate of 7% from 2006 to 2010, pushing the demand over $3 billion (Specialists in Business Information, 2006). Numerous reports (Lee, 2008; Ekström1 and Goetzl, 2007) observe the certified flooring demand to increase in the future with customers becoming more environmentally aware and turning to green building. To meet this rising demand, many manufacturers are turning to third-party certification to verify that their products are coming from well-managed sources. According to wooden flooring manufacturers, FSC certification is the most popular, which is also recognized by LEED, NAHB's Model Green Home Building Guidelines, and Green Globes rating systems (Lee, 2008). SFI certification is recognized by NAHB and Green Globes systems.

Although numerous certification-related market studies have been done on various segments of the value chain, certification involvement of the value-added wood products industry received relatively scant scholarly attention over the past few years. Vlosky and Ozanne (1998) studied the U.S. wood products manufacturer perceptions of certified wood products and found that there's a tendency among larger manufacturers to be more environmentally oriented. Manufacturers in general were concerned about the costs of managing chain of custody certification. A recent study (Vlosky *et al*, 2003) to determine certification involvement by value-added wood products manufacturers in the U.S. found that respondents had little familiarity with major U.S. certifiers and certification in general. Results further suggested that respondent manufacturers are less willing to pay a premium for certified raw materials.

Forty-seven percent of a select group of *Wood & Wood Products* readers responding to a recent survey said the green building movement will have a positive impact on the woodworking industry. Certification has been on an accelerated growth path for the past 10 years. Figure 1 shows a generalized structure of a certification program. There are two types of certification. The first is forest management where a third-party entity approves and certifies that forest management techniques adhere to the programs guidelines or rules. The second type of certification is Chain-of-Custody where certified material is tracked and monitored as it moves through the supply chain from the forest to the finished product for sale to consumers or other end customers such as builders.

2 THE STUDIES
2. STUDIJE

In 2002 and 2008 we conducted studies identify value-added wood industry perspectives and participation in certification and to see what has changed in the

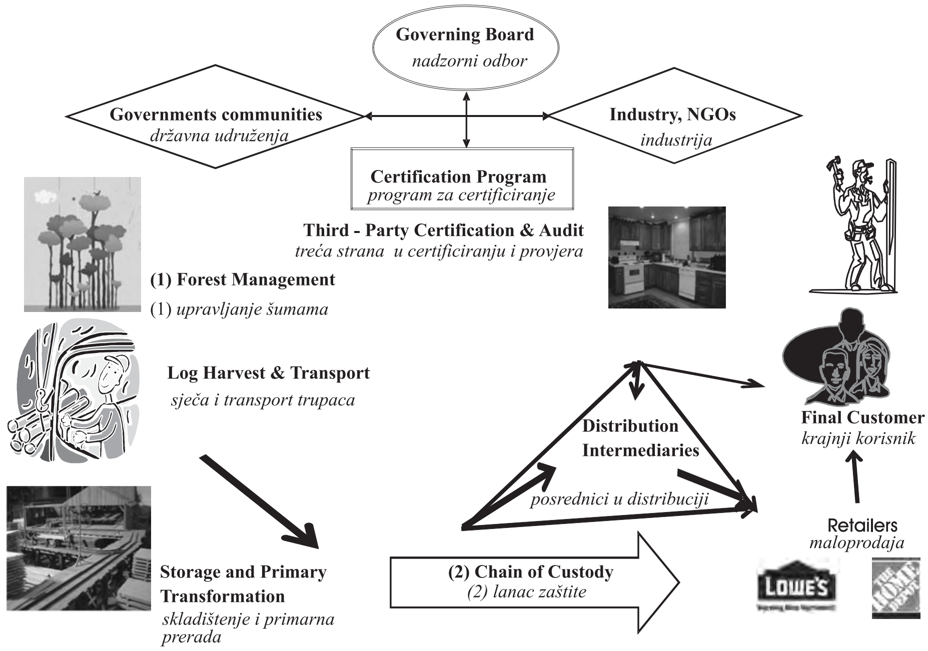


Figure 1 Generalized certification program structure
Slika 1. Opća struktura programa za certificiranje

industry in the past 6 years. The 2008 study was web-based and anonymous. We worked with associations to send survey link to members of five national associations: Association for Retail Environments (A.R.E.); Architectural Woodwork Institute (AWI); Business and Institutional Furniture Manufacturer Association (BIFMA); Kitchen Cabinet Manufacturers Association (KCMA); and the National Hardwood Flooring Association (NHFA). In addition, the link was published in Wood & Wood Products magazine. In 2002, we used paper-based surveys sent by associations to members (AWI, BIFMA, KCMA, and the National Association of Store Fixture Manufacturers (NASFM)) to their members.

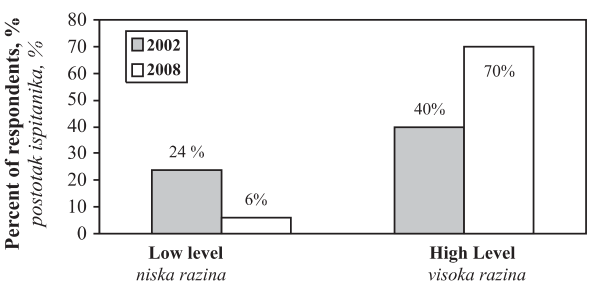
3 RESULTS
3. REZULTATI

Over the past six years, the level of understanding about both forest and chain-of-custody certification has increased significantly for all respondents whether they sell certified products or not, Figure 2. As certification becomes more prevalent in wood product supply chains, all supply chain members need to be familiar with certification if they are to participate effectively.

3.1 Certified Wood Product Sales
3.1. Trgovina certificiranim drvnim proizvodima

The percent of respondents that sell certified products increased 425% from 2002 (8% of respondents) to 2008 (42% of respondents). In addition to this increase, the average percent of company sales from certified products more than doubled from 10% in 2002 to 21% in 2008. The average dollar revenue attributed to certified wood product sales rose over 1,200% from \$720,000 in 2002 20 \$9.4 Million in 2008. In 2002, 19% of respondents had chain-of-custody certification while in 2008, 36% of respondents did so.

There are many possible reasons why a company would enter the certification arena. For the value-added wood manufacturer respondents in this study, the business owner commitment to the environment ranked number one in 2002 and 2008. Second ranked were to increase sales (2002) and take advantage of growing markets (2008). Ranked last for both studies was the



a)

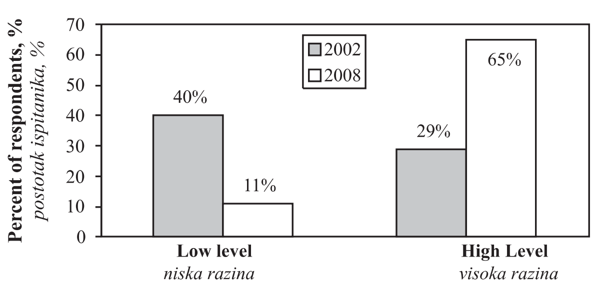


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Figure 2 Level of Understanding about Certification: a) Level of understanding of forest management certification (2002: *n*=270; *n*=464); b) Level of understanding of chain-of-custody certification (2002: *n*=270; *n*=464)
Slika 2. Prikaz razine razumijevanja certificiranja: a) razina razumijevanja certificiranja u upravljanju šumama (2002: *n*=270; *n*=464); b) razina razumijevanja certificiranja u lancu zaštite (2002: *n*=270; *n*=464)

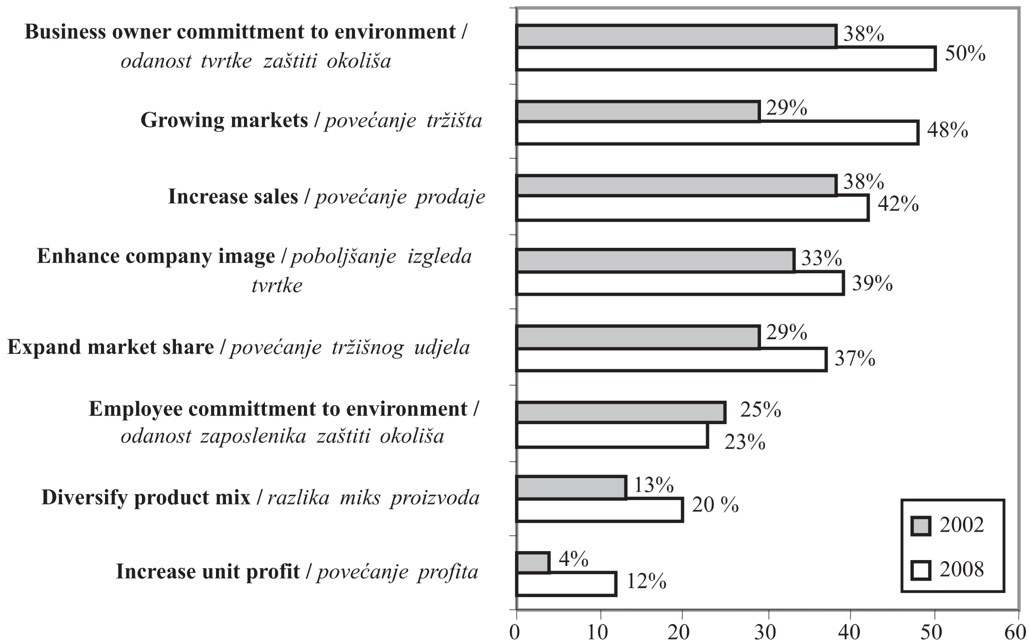

Figure 3 Reasons for getting involved in certification (multiple responses possible)
Slika 3. Razlozi uključivanja u postupak certificiranja (mogućnost višestrukog odgovora)

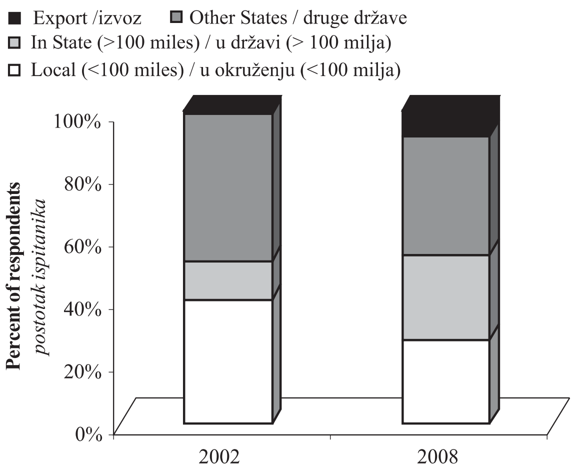

Figure 4 Certified wood product customer locations - distance from the respondent company/plant
Slika 4. Udaljenost anketiranih korisnika certificiranih drvnih proizvoda od mjesta gdje su proizvodi kupljeni

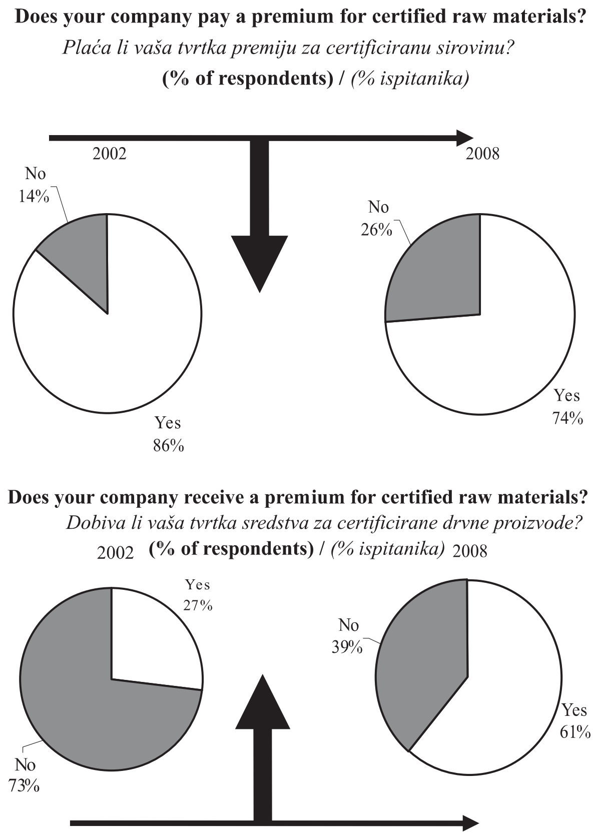

Figure 5 premiums paid for certified raw materials and received for certified products
Slika 5. Plaćene premije za certificiranu sirovinu i dobivanje poticajnih sredstava za certificirane proizvode

goal of increasing profit/unit although this objective was more important in 2008.

Respondents sell their certified wood products through a variety of distribution channels and end users. With regard to distance from the company where certified products are sold, Figure 4 shows that the percent that is going to export markets has increased from 1% in 2002 to 8% in 2008 indicating that U.S. respondents increasingly are able to compete in the global certified wood product marketplace.

3.2 Is anybody making money on Certification?
3.2. Zarađuje li netko certificiranjem?

There are costs associated with becoming certified regardless of which program is used. The key, and often unanswered, question is "Is anyone making a profit off of certification?" The straight answer is respondents are not sure or aren't telling. We were able to tease out some information that could be used to draw some inferences about profitability. For example, the percent of respondents *paying* an upcharge or premium for certified raw materials to manufacture their products *decreased* from 86% of respondents in 2002 to 74% of respondents in 2008. On the other hand, the percent of respondents *re-*

ceiving a premium for the certified products they sell *increased* from 27% in 2002 to 61% in 2008, Figure 5. In addition, in 2002, 89% of respondents said they incurred *additional costs* (excluding raw materials) to provide certified products to their customers. This dropped to 77% of respondents in 2008.

4 CONCLUSIONS
4. ZAKLJUČCI

Results show that certification continues to be an important issue for the value-added wood products sector in the U.S. Certification awareness and participation have increased significantly from 2002-2008. The percent of respondents receiving premiums for certified products has increased significantly from 2002-2008 and the percent of respondents incurring [non-raw material] costs for certified wood raw materials declined. The percent of respondents paying a premium for certified wood raw materials has also declined. Although these results may suggest profitability, the value and profitability propositions for certification remain elusive and inconsistent. Finally, 97% of respondents in 2008 said that they will continue to sell certified wood products in the future.

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Corresponding address:

Professor Richard Vlosky, PhD FIWSc

Louisiana Forest Products Development Center
LSU AgCenter
Baton Rouge, Louisiana 70803 USA
e-mail: vlosky@lsu.edu