

FSMIP Final Performance Report

Report Number/Period:	Final Report
Date:	1 December 2017
Recipient Contact:	Ivan Eastin, 206.543.1918, eastin@uw.edu
Recipient Name:	University of Washington
Project Title:	Assessing Export Opportunities for Tribal Wooden Gift Boxes in Japan
Grant Number:	14-FSMIP-WA-0015; UW #A95165
Total Awarded Budget:	\$89,058
Total Match:	\$89,878

Project Title: Assessing Export Opportunities for Tribal Wooden Gift Boxes in Japan

Project Co-Investigators:

Dr. Ivan Eastin, Professor, School of Environmental and Forest Sciences and Associate Dean of Research, College of the Environment, University of Washington, Seattle, WA

Dr. Daisuke Sasatani, Research Associate, School of Environmental and Forest Sciences, College of the Environment, University of Washington, Seattle, WA

Dr. Indroneil Ganguly, Associate Professor, School of Environmental and Forest Sciences, College of the Environment, University of Washington, Seattle, WA

Mr. Clarence Smith, Graduate Student, Research Associate, School of Environmental and Forest Sciences, College of the Environment, University of Washington, Seattle, WA

BACKGROUND AND JUSTIFICATION

A state of emergency exists in many forest-dependent Indian communities. Depressed markets for forest products have resulted in the loss of jobs, the loss of revenues to support tribal government, and threaten the health of the tribal forests themselves, jeopardizing the water, fish, wildlife, foods, and medicines that are vital to sustain tribal lifeways. For example, in 2005, the Colville, Warm Springs and the Yakama Indian Nation had combined timber revenues of \$44.8 million that helped support tribal governments, their communities and the communities outside the reservations. During the financial crisis in 2009, the estimated timber revenues for those same tribes had declined to approximately \$6.8 million, a loss of approximately \$38 million or 86% (BIA 2009, 2010). And timber revenues remain well below their 2005 levels (ITC 2014).

Low lumber prices challenge tribal sawmilling and forest operations, reduce stumpage revenues and the availability of administrative deductions to fund forestry activities, and jeopardize tribal employment. For timber-dependent tribes, the community suffers as jobs and revenues decline and the capacity to maintain healthy forests is compromised. By early 2014, the official US unemployment rate (the so-called U3 measure) had dropped to 6.8% from its high of 10% in late 2009. However, the broader estimate (the so-called U6 which includes the short-term unemployed) was still above 14% (BLS 2014). Native American unemployment is more than double the average US rate and exceeds 80% on 15 tribal reservations (Indian Country 2013).

Tribal resource management and agriculture is often based upon a unique integration of cultural, environmental, and economic values that contribute many public benefits and ecosystem services (Ince 1989; Berry 2010). However, these values are generally not recognized or rewarded in the marketplace (Eastin 2008, 2009; Eastin and Ganguly 2010; Mason 2009, 2010; Milakovsky 2008, 2009; Peterson 2010). Historically, tribal forest and agricultural products are often sold as commodities in the domestic market with little effort to distinguish or differentiate them from similar non-native products (Irland 2009; Huff and Pecore 1995).

Project Justification

Despite continued weak domestic demand, US total wood exports have been consistently increasing since 2009 and totaled \$9.7 billion in 2013, up by 14.02% over 2012. Similarly, US lumber exports rose by 17.8%; with exports to China and Japan growing by 43.2% and 16.8%, respectively (GTA 2014). While China remains a price sensitive market for lower quality wood, the Japanese market continues to pay a price premium for higher quality wood products (Eastin 2010). There are over 240 tribes with commercial forestlands and many tribal forestry programs produce logs that possess the unique qualities (e.g., large diameters and narrow grain) that are highly valued in Japan (Eastin 2009; ITC 2010; Morishima 2009).

While US agricultural exports have been rising since 2009, exports to Japan have fallen in each of the past two years, dropping to \$12.1 billion in 2013. Opportunities exist to develop niche products for Japan where consumers appreciate the unique values reflected by Native American forest and agricultural products. Exporting co-marketed wood and agricultural products can provide tribal forest managers with a new strategy to promote economic development and maintain cultural traditions within and between tribal communities while emphasizing the environmental sustainability of tribal agricultural and wood products. Unfortunately, research conducted by CINTRAFOR for the Intertribal Timber Council found that Native American tribes often lack the managerial expertise and resources necessary to enter and compete within international markets (Eastin and Ganguly 2010; NCAI 2009).

In his State of the Union Address on January 27th, 2010 President Obama laid out an ambitious target of doubling US exports over the next five years (Obama 2010a). President Obama issued an Executive Order on March 11th, 2010 establishing the National Export Initiative designed in part to

enhance export assistance to small and medium-sized enterprises (including tribes) by improving the technical capacity of first-time exporters and assist current exporters in identifying new export opportunities in international markets (Obama 2010b). However, a lack of marketing and managerial skills hampers tribal efforts to participate in export markets.

Developing marketing and managerial skills is critical for tribal forest and sawmill managers looking to identify, enter and compete in international markets (Eastin and Ganguly 2010). Exporting can provide tribal forest managers with a new strategy to promote economic development and could create substantial employment opportunities within the participating tribal communities. Co-marketing of tribal agricultural and forest products will allow tribes to take advantage of the synergies that exist between these two product categories, including sustainability and their role within tribal culture.

Rationale and Significance

This project is designed to evaluate the effectiveness of the tribal “brand” in expanding the demand for tribal products through the co-marketing of tribal agricultural products packaged in a tribally produced wooden gift box within the US and Japanese markets. If found to be effective, the co-marketing strategy could be applied to several combinations of tribal agricultural/wood products, increase the demand for, and profitability of, tribally produced agricultural products and help to develop the marketing and managerial capacity within Native American communities. The project objectives include: a) develop and implement consumer surveys in the US and Japan to identify the optimal mix of attributes for co-marketing tribal agricultural products packaged in traditional wood boxes using an optimal choice experimental design in conjunction with perceptual mapping, b) conduct workshops to develop managerial expertise within tribes and support the establishment of networks for commerce between tribal communities, c) develop a strategic framework for co-marketing tribal agricultural and wood products in Japan and the US and d) support graduate training of tribal students.

Project results:

In this investigation we found that there is a value to a Native American design and that survey respondents indicated that they would pay a premium for a tribal gift box that was manufactured using sustainable managed tribal wood and manufactured by a Native American craftsman. This differentiation is important because the potential customer does understand that if two identical products are sitting side by side and the only thing that differentiates them is a certification logo that states its origin is from a reservation, they would purchase the certified one because it carries an intrinsic value. This value can be used by tribes to promote economic prosperity in a value added timber market or any other market that would carry the tribal brand.

The tribal brand captures the essence of the tribal culture beyond the product itself. In order to understand what kind of values potential customers find similar or dissimilar when selecting a tribal gift box, a factor analysis was conducted. The results revealed that Native American appeal and aesthetic appeal are closely correlated to Native American appeal in general. And beyond that the research indicates that many of the survey respondents have an intrinsic belief that Native American forestry practices are inherently sustainable. The survey data indicates that respondents believe that tribal forest are sustainably managed and that tribal products contribute to the tribal economy. These results are important to understand because they can be used to create the branding vision that the Native American tribes may be trying to create. Also, the results revealed that survey respondents perceived that the following statements are similar: “sustainability”, “supports responsible forest management” and “supports local craftsman” are similar.

However, different customers hold different perceptions. In order to classify potential customers based on their perceptions when selecting a tribal product, we performed a cluster analysis. We found

four different clusters. The “Prime Market” cluster include older respondents and those more familiar with Native American culture. This indicates that it would be a good idea to sell tribal gift boxes at Native American cultural events, such as pow-wows. Another cluster worth pointing out is the “Potential Market” cluster because they were found to be more likely to purchase wooden gift boxes. These potential customers were in the 40-50-year age category and included more males than the other clusters. These two clusters are ideal for tribal marketers to focus on. The third option for a tribe is the environmental-focus cluster because this group rated the environmental aspects of the gift box high. They have the highest income and the highest education among the four clusters. It would be a good idea to emphasize the environmental aspects of tribal gift boxes to sell to them. Unfortunately, the youngest cluster ranked the tribal gift boxes very low and was considered to have much less potential market opportunity. The results clearly show that the marketing strategy should be tailored to the specific group being targeted.

Tribal design, forest certification logo and price significantly impacted respondents’ perceptions. Both the certification logo and the salmon design increased the likelihood of purchase. Though there was some variation among the different clusters. Prime market overall holds high likelihood to purchase tribal box, though the results suggest they are somewhat price sensitive since they have highest likelihood to buy the box when it is \$15, but the likelihood drop if it is \$20. This group included the highest proportion of older female respondents. When looking at the data all respondents want the tribal salmon image, there is a potential premium for the tribal forest certification and price does have an influence on their potential selection in the end.

Policy implementation

Individual Entrepreneur/ tribal governmental businesses

Tribes and individual Indian entrepreneurs have a general lack of education and experience about business in general. This is a significant challenge to any prospective business venture either by the tribe itself or an individual Indian entrepreneur. The areas of weakness include: having limited knowledge of marketing, writing a business plan, completing a loan application, and general business practices. This can also be seen in the fact that very few Native Americans are business owners. According to the latest research available, just 1 in 100 Native Americans are small business owners (O’Hare, 1992). This can be summed up in the fact that in America there is around 170,000 reservation entrepreneurs operating on a micro-level (Adamson & King, 2002). For a Native American to be a business owner there are many challenges and they are breaking new ground in reservation economic activity.

Indian Community

Native American tribes have available an abundance of natural resources that can be utilized in value added products in the timber market, including non-timber forest products (NTFP’s). The NTFP’s industry would be best implemented in a way that coincides with the research findings summarized above. To focus on sustainability and sound forest management, these are the stories that need to be told by the Native American community to differentiate tribal forest products from other similar products. The rich culture inherent in every Native American tribe was found to be an economic attribute. In this case the cultural design used on the tribal gift box (salmon artwork) increased the Native American appeal and the beauty image significantly and was shown to be easily adjusted with price. The higher the price, the more the purchase preference increased. Another result about the design is that it significantly increases the perceived value of the tribal gift box. The Native American logo had a strong influence on how potential consumers perceived Native American forest management practices and sustainability.

The results also showed that when people are uncertain about the product, price plays a big role

and once they become more certain about the product the role of price goes down. What does this mean for the tribal government and how can tribal entrepreneur benefit from this information? The Native American story has shown to be a significant factor in both the potential marketing and branding of a tribal gift box, but this can be crossed over into any product that can be certified as truly Native American and that comes from a Native American forest.

The Native American forest practices and traditions are its logo. The Native American community will help cultivate this logo into a strong and respectable brand. This takes a solid environmentally sustainable management plan that can be implemented systematically. This type of environmental management plan has to be the mission and trust needs to be built into this and it cannot be compromised. The traditional and cultural connection to the forests and to the land in general is a part of the Native American original instruction. This is obvious in the medicine wheel symbol as well as many other symbols that tribes use in their traditional teachings. This revival of community around the traditional teachings about the forest and land has many benefits. These benefits are not limited to things like brands or marketing but go beyond them to potentially help heal social ills and to expand education about the role and use of traditional medicines that are found in forest and other areas around traditional home lands. The tribal community does play a vital role in this endeavor because it is the community that tells the story; it is the community that can showcase the importance of tribal forests and indigenous lands.

Project Deliverables:

Presentations:

Identifying Niche Markets for Tribal Wood Products: Adding Value Through Design. Intertribal Tribal Timber Workshop. Spokane WA. 6-7 October 2016.

Exploring Export Opportunities for Tribal Wood Products in Japan. Economic Development Administration National Conference. Washington, DC. April 6-7, 2016.

New Developments in International Trade. Tribal Export Briefing. US Embassy Tokyo, Japan. March 31st, 2015.

Eco-Labeling Native American Tribal Forest Products. College of Menominee Nation Summit on Tribal Forestry and Wood Products. Keshena, WI. June 6-7, 2015.

New International Market Opportunities for Tribal Wood Products. 36th Annual National Indian Timber Symposium. Confederated Tribes of the Warm Springs Reservation. Warm Springs, OR. 14-17 May 2015.

Publications:

Sasatani, D., C. Smith, I. Eastin and I. Ganguly. 2016. The Perceived Value of Native American Wooden Gift Products with or without a Certification Label by Groups of Potential Customers. ***Journal of Forestry***. V(115)N(5), pp:370-378.

Bibliography

- Adamson, R., & King, J. (2002). *The Native American Entrepreneurship Report*. Fredericksburg, VA: First Nation Development Institute.
- Algernon, A. (2013). *Race and Ethnicity Native Americans and Jobs. The Challenge and the Promise*. Retrieved from <http://www.epi.org/publication/bp370-native-americans-jobs/>
- Anderson, D. (2015). Keynote speaker. Retrieved from http://www.thebarryagency.com/College/talent/dave_anderson_bio.htm
- Bureau of Indian Education [BIE]. (2015). Bureau of Indian Education. Doing What's Best for students! [Government]. Retrieved from <http://bie.edu/Schools/Colleges/index.htm>
- Brown, S. (1995). Post Modern Marketing. *European Journal of Marketing*, 27(4), 164.
- Carey, B. (2012, November 4). Suicide Rate Rose During Recession, Study Finds. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/11/05/health/us-suicide-rate-rose-during-recession-study-finds.html>
- Cha, S., McCleary, K. W., & Uysal, M. (1995). Travel Motivations of Japanese Overseas Travelers: A Factor-Cluster Segmentation Approach. *Journal of Travel Research*, 34(1), 33–39. <http://doi.org/10.1177/004728759503400104>
- Curtin, R. Presser, S. & Singer E. (2000). The Effects of response rate change on the index of consumer sentiment. *Public Opinion Quarterly*, 64(4), 413–428.
- Donald, R. & Burton, S. (1989). The relationship between perceived and objective price quality. *Journal of Marketing Research*, 26(November), 429–443.
- Dorota, R. (2013). Determinants of purchasing behavior, 17(1).
- Eastin, I.L. and Ganguly, I. (2011). *Branding and Marketing Tribal forest products* (Topic Module summaries No. II). Portland Oregon: Intertribal Timber Council.
- Economist. (2014). What are brands for? *The Economist*.
- Green, M. K. (1993). Images of Native Americans in Advertising: Some More Issues. *Journal of Business Ethics*, 12, 323–330.
- Hansen, E., Fletcher, R., Cashore, B. & McDermott, C. (2006). Forest Certification in North America. *EC* 1518.
- Huang, J., Tzeng, G., & Ong, C. (2007). Marketing segmentation using support vector clustering. *Expert Systems with Applications*, 32(2), 313–317. doi: 10.1016/j.eswa.2005.11.028
- IBM SPSS. (2015). About SPSS. Retrieved from <http://www-01.ibm.com/software/analytics/spss/products/statistics/>
- Imam, F. (2013). Gender Difference in impulsive buying behavior and post purchasing dissonance: under incentive conditions. *Journal of Business Strategies*, 7(1), 23–29.
- Indian Country Today Media Network. (2015). Fake Indian. Retrieved from <http://indiancountrytodaymedianetwork.com/2015/07/02/feds-artist-terry-lee-whetstone-fake-indian-160941>
- Johnson, C. & Johnson, B. (2012). Menominee Forest Keepers. Retrieved from www.amaericanforest.org
- Loudon, D., Della-Bitta, A.J. (1993). *Consumer Behavior* (4th ed.). McGraw-Hill, New York.
- McCartney, S., Bishaw, A. and Fontenot, K. (2011). Poverty Rates for selected detailed race and Hispanic groups by state and place: 2007-2011. U.S. Census Bureau.
- McGaa, E., & Man, E. (1990). *Mother Earth spirituality: Native American paths to healing ourselves and our world*. Harper & Row.
- McKenna, R. (1991). Marketing is everything. *Harvard Business*, 69.
- Merskin, D. (2010). Winnebagos, Cherokees, Apaches, and Dakotas: The Persistence of Stereotyping of American Indians in American Advertising Brands. *Howard Journal of Communications*. Retrieved from <http://dx.doi.org/10.1080/106461701753210439>
- Millissa, E.A. (2015). *Testimony before the subcommittee of interior, Environment, and related agencies,*

- Committee on Appropriations, House of Representative. United States Government Accountability Office. Retrieved from www.goa.gov/assets/670/668746.pdf.
- Millward Brown, Inc. (2015). How Brands Drive Value Growth, 1–9. Millward Brown. (2015). Brandz Top 100. Retrieved October 28, 2015, from https://www.millwardbrown.com/BrandZ/2015/Global/2015_BrandZ_Top100_Report.pdf.
- Morishima, G., Mason, I., Eastin, I., Ganguly, I., & Petersen, J. (2011). *Branding and Marketing Tribal forest products* (Synthesis).
- National Congress of American Indians [NCAI]. (2012). Geographic & Demographic Profile of Indian Country. NCAI Policy Research Center.
- Nord, J.H., Wheeler, N., & Tovar, M. (2011). A cup of cappuccino for the entrepreneur's spirit: American Indian women entrepreneur's edition. *Entrepreneur Enterprise*.
- Nyaupane, G.P., White, D.D. & Budruk, M. (2006). Motive-Based Tourist Market Segmentation: An Application to Native American Cultural Heritage Sites in Arizona, USA. *Journal of Heritage Tourism*, 1(2).
- O'Hare, W. (1992). "Reaching for the Dream," *American demographics*.
- Paul, S., Trun, K., & Alan, D. (1996). House hold store brand process. *Journal of Retailing*, 72(2), 159–185.
- Peralta, K. (2014). Native Americans Left Behind in the Economic Recovery. *U.S. News & World Report*.
- Powell, F.W. (1910). Co-operative Marketing of California Fresh Fruit. *Journal of Economics*, 24(2), 392–419.
- Richard, L., & Debbie, H.V. (2012). *Statistical Concepts, A second Course* (4th ed.). Routledge.
- Sasatani, D., & Eastin, I. (2012). Construction professionals' environmental perceptions of lumber, concrete and steel in Japan and China. *The Forestry Chronicle*, 88(5), 595.
- Spehar, S. (2012). Sustainability 101. University of Wisconsin-Oshkosh. Retrieved from <https://www.uwosh.edu/usp/for-faculty-and-staff/signature-questions/sq-sustainability/sq-sustainability-pdfs-files/sustainability101-spehar.pdf>
- Stawicki, E. (2015). Crazy Horse Dispute Settled. *Minnesota Public Radio*.
- Tu, S.H., & Liao, P.S. (2007). Social Distance, Respondent Cooperation and item Nonresponse in sex survey. *Quality & Quality*, 41(2), 177–199.
- UNECE/FOA. (2009). *Forest certification challenged by climate change and illegal logging concerns: Certified forest products market, 2008-2009* (p. chapter 10). UNECE/FAO Forest product Annual Market Report. Retrieved from <http://www.unece.org/fileadmin/DAM/timber/docs/certification/2009-cert.pdf>
- U.S. Census. (2010). American Indian and Alaskan Native [Government]. Retrieved from <http://www.census.gov/aian/>
- Wood, M. (1998). Socio-economic status, delay of gratification, and impulse buying. *Journal of Economic Psychology*, 19(3), 295–320.
- Zeithaml, V. (1988). Consumer perception Price, Quality and Value: A means end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22.

Identifying Niche Markets for Tribal Wood Products: *Adding Value through Cultural Design*

Clarence Smith, Daisuke Sasatani, Ivan Eastin and
Gary Morishima

University of Washington

*Presented at the Intertribal Tribal Timber Workshop.
Spokane WA. 6-7 October, 2016.*



Agenda

- Background
- Research Objective
- Experimental Design
- Results
- Conclusions

This material is based upon work that was financially supported by the National Institute of Food and Agriculture, USDA National Needs Fellowship program under Award number 2012-38920-30196 and the USDA Federal State Marketing Improvement Program, Award number 14-FSMIP-WA-0015. Finally, we are grateful of the consultation of ITC during the development and implementation of this project.

Tribally owned sawmills

- **10 sawmills (2001) → 4 sawmills (2016)**

(San Carlos Apache, White Mountain Apache, Yakama, and Menominee)

- Tribal forest management is based on a unique integration of cultural, environmental, and economic values that provide many public benefits and ecosystem services to tribal communities.
- Tribal forest products are often sold as commodities and the distinct values of tribal forest products are generally not recognized or rewarded in the marketplace (Morishima 2014).
- Previous CINTRAFOR project helped develop the Japanese market for tribal timber.

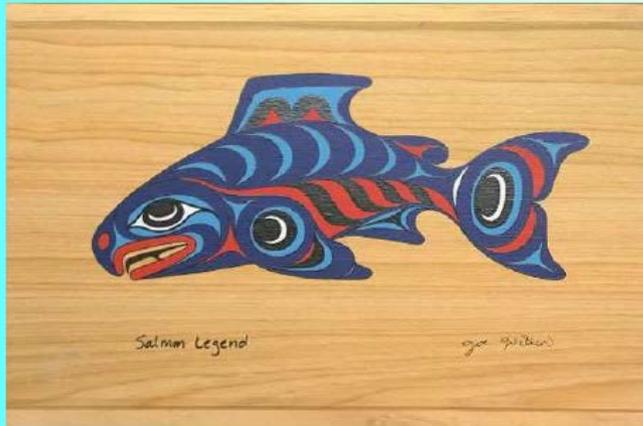
Research Objective

Do consumers perceive a higher value for wood products manufactured by Native American craftsmen using wood derived from sustainable managed tribal forests?

This research was designed to explore how sustainably harvested tribal timber and Native American cultural art designs might influence customers' preferences and willingness to buy tribal wooden gift boxes.

Tribal Wooden Gift Box Variables

- Tribal Art Design vs Plain wooden box
- Hypothetical Forest Certification Logo
- Three different price levels (\$10, \$15, \$20)



Experimental Design



Survey Methodology

- Collected demographic information.
- Asked respondents' opinions on statements.
- Showed **3** boxes to survey respondents (the attributes were as balanced and as orthogonal as possible).
- Respondents were asked to rate the perceived value of each box in terms of eight attributes.
 - ❖ *(beauty, tribal appeal, environmental sustainability, good forest management, supports local craftsman, good value, good gift, likelihood to purchase)*
- Respondents were asked to rate the importance of seven attributes when considering purchasing the wooden box.
- Respondents were asked to indicate their level of agreement with five statements.

Survey Methodology

Native American Gift Box Survey
Please rate the following attributes for each box (A, B, & C).

- Aesthetic Appeal (Beauty).**

	Not at all		Slightly	To a high degree	
Box A	1	2	3	4	5
Box B	1	2	3	4	5
Box C	1	2	3	4	5
- Native American Appeal.**

	Not at all		Slightly	To a high degree	
Box A	1	2	3	4	5
Box B	1	2	3	4	5
Box C	1	2	3	4	5
- Environmentally Sustainable Product.**

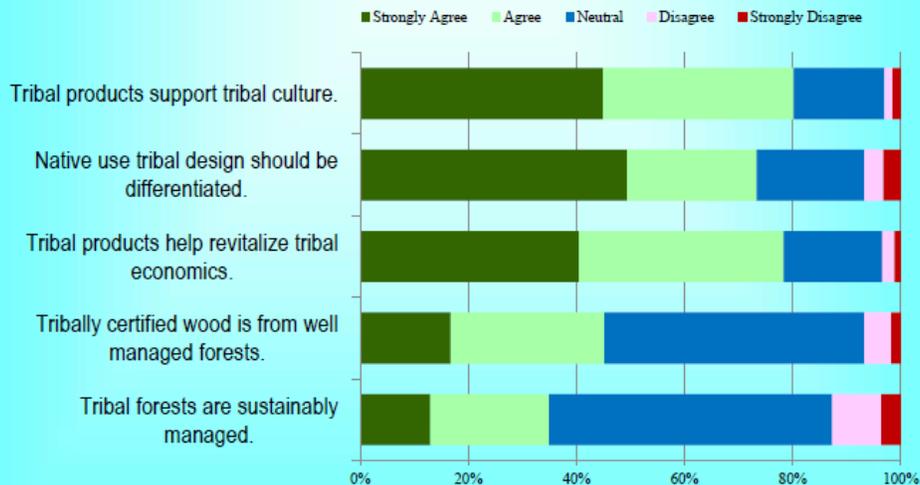
	Not at all		Slightly	To a high degree	
Box A	1	2	3	4	5
Box B	1	2	3	4	5
Box C	1	2	3	4	5
- Supports Local Craftsman.**

	Not at all		Slightly	To a high degree	
Box A	1	2	3	4	5
Box B	1	2	3	4	5
Box C	1	2	3	4	5

Demographics of Survey Respondents

- **602** surveys collected
- Male: **40.1%** and Female: **59.9%**
- Median Age: **35-44 years old**
- Median Household Income: **\$50,000-\$100,000**

Respondent Agreement



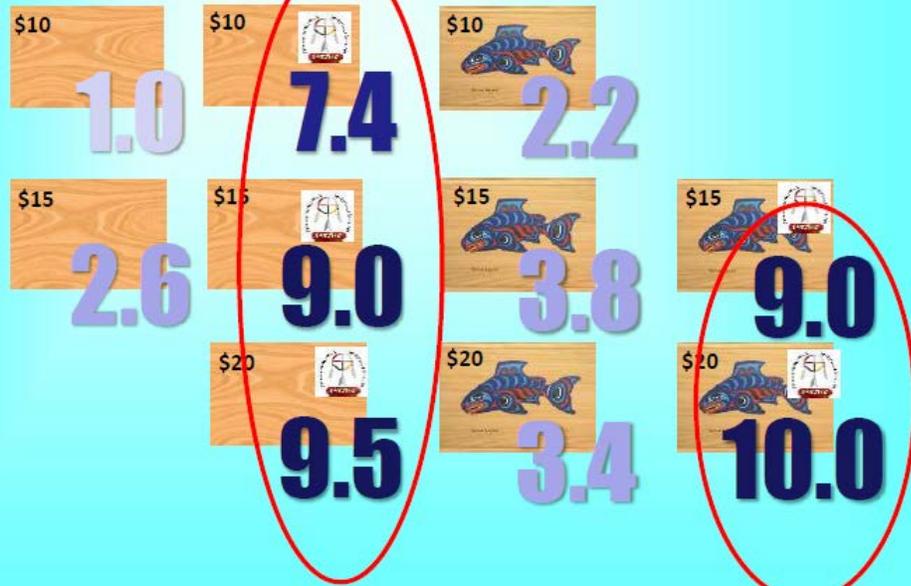
Respondents strongly agreed with first three statements but were generally neutral regarding last two statements (suggests there is an opportunity to educate). Very little disagreement with any of the statements.

Results: Sustainability Score



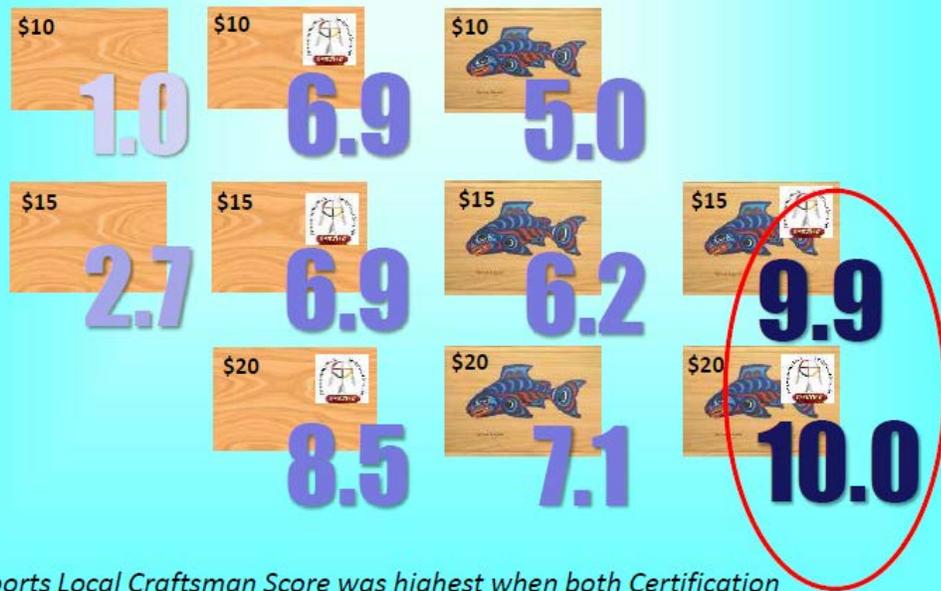
The Sustainability Score was highest when the Certification Label was present

Results: Forest Management Score



Forest Management Score was highest when the Certification Label was present

Results: Supports Local Craftsman Score



Supports Local Craftsman Score was highest when both Certification Logo and Tribal Art Design were present

Results: Aesthetic Score



Aesthetic Score was highest when the Tribal Art Design was present

Results: Native American Appeal Score



Native American Appeal was high when the Tribal Art Design was present but the Certification Logo increased the score significantly

Results: Good Gift Item Score



Good Gift Item Score was significantly higher when both the Certification Logo and Tribal Art Design were present

Results: Good Value Score



Good Value Score was highest when both the Certification Logo and Tribal Art Design were present

Simulated Results: Likelihood to Purchase

(1: Lowest Likelihood – 10: Highest Likelihood)



Both the certification logo and the art design positively affected likelihood to purchase whereas price was negative related.

Conclusions

- The research results strongly suggest that a tribal brand can be effective in marketing tribal wood products.
- The certification logo significantly increased consumer perceptions of overall sustainability and sustainable forest management for the tribal wood boxes.
- The tribal art design significantly increased consumer perceptions of beauty for the tribal wood boxes.
- The combination of the certification logo and the tribal art design significantly increased consumer perceptions of supports local craftsmen, has Native American appeal, is a good gift and is a good value.
- The likelihood of purchasing a tribal gift box was positively influenced by both the certification logo and the tribal art design although it was significantly higher when **both** were present.