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Importance of steak origin to restaurant customers

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Introduction

Today, consumers are more informed about the origin of their food due to the desire to have confidence in the safety of their food. This need for information has lead to an increase in demand for even higher levels of safety and quality (Unnevehr, 2003). Currently, traceability and source-verification are considered indicators of beef quality and safety by consumers. Mennecke et al. (2007) found that consumers place a high precedence on any information that can relate to the origin and production of their food. Research also indicates there could be preference for U.S. beef, especially beef from the Midwest (Mennecke et al., 2007).

With the advent of animal identification systems, opportunities are increasing to provide source-verified beef to restaurant patrons. Restaurants and producers could create a niche market by offering products that are either source-verified or traceable from farm to restaurant. In order for this to be a viable option there has to be a financial incentive. Dickenson and Bailey (2002) along with Loureiro and Umberger (2007) found a majority of consumers are willing to pay more for a red-meat product that has a confirmed traceability.

Patrons in high-end restaurants often have more disposable income and are willing to pay more for a premium product. Also, trends popular in high-end restaurants are frequently emulated in more casual restaurants. Dickenson and Bailey (2002) report discussed a need to verify their results by conducting a retail study. Placing source-verfied meat in high-end restaurants and testing if consumers will pay a premium for products with various forms of traceability is one way to verify their findings.

The objectives of this research were to determine factors that influence consumer purchasing decisions in high-end restaurants. From there, it was possible to discover if consumers were interested in knowing the origin of their beef and the extent to which they were willing to pay a premium for this information.

Online Survey

Three high-end restaurants on the East Coast (Connecticut) and three restaurants in the Southwest (Phoenix) were contacted and agreed to promote an online survey. The 36-question survey inquired about a wide array of different aspects relating to the eating experience of different meat products, beef specifically.

The survey asked several questions inquiring about the participants (n = 1,087) dining habits, meat consumption, specific desired steak attributes, source verification opinions, and willingness to pay for certain steak types. For several of the questions, participants were allowed to select more than one answer. All the survey responses from all the regions were composited and analyzed as one.

To inform patrons of the survey, each restaurant sent out an email blast to their subscriber list informing them of the survey and, in some instances, offering a coupon towards an item for completing the survey. Also, for four weeks, servers would hand out post cards describing the survey to patrons with their bill receipt. The survey was open for four weeks to ensure that consumers had plenty of time to participate.

Tasting Event Survey

Select restaurants, two in Connecticut and one in Phoenix, were chosen to host a steak tasting event. All restaurants were high-end, elegant restaurants that featured steaks. Participants registered for this event at the end of the online survey and were provided with a gift certificate for a predetermined amount to be used at the event. Source-verified steaks with known farm-of-origin of equal quality grade and tenderness were shipped to each restaurant prior to the tasting. The night of the tasting event, participants (n = 192) were given a menu listing four different steak options. Each option had a similar description except that the source-verification (farm-verified, state-verified, region-verified, or generic) and price were different for each steak. Price was randomly assigned to each steak as a way to determine how price affects ordering behavior. The cheapest steak was always equal to the amount on the gift certificate. Participants paid the additional price when they selected a more expensive option. After participants chose which steak they wanted, they were asked to write down the reasons for their decision. Following their meal, participants were given a brief survey asking them again why they chose the steak they ordered, where they thought the best beef comes from, and their willingness to pay more for a steak that has been source-verified or guaranteed to have a positive eating experience. They were also asked to rate the steaks they consumed based on visual appearance, aroma, flavor, juiciness, tenderness, and overall acceptability on a scale of 1 to 5, with 1 being the best score, as well as willingness to purchase the same steak again.

Online Survey Results

Most participants reported dining out 2 to 3 times a month (30%) or weekly (28%) (Data not presented). The majority of the participants consumed beef on a weekly basis and both in and outside of the home. When participants dine at a nice restaurant, they prefer to order beef (52%) and fish (34%). The cut of beef participants most prefer to order was filet mignon (41%), while the New York Strip (17%), Ribeye steak (14%), and Prime Rib (12%) were also preferred. For a 2nd choice option, the 4 most preferred cuts were the New York Strip (20%), ribeye (19%), prime rib (16%), and Filet Mignon (15%).

When participants are dining at a nice restaurant and are not sure of what to order, 46% stated that they would normally not seek advice and 41% said that sometimes they would

seek advice from others (Table 1). Of those who stated they would seek advice, most would consult with their server or a member of the wait staff (92%) while 38% said they would consult their spouse/partner.

When evaluating consumer preferences for ordering menu items (Figure 1), most participants stated they will order something new if they have the opportunity to sample it first (59%), like to frequently try new menu items (51%), or try new items if recommended by the waiter or chef (51%). Many said they would order an item in the price is right (46%) or they usually just stick to their favorite item (43%).

Table 2 shows that when participants are ordering a steak, the 3 most important traits/attributes to them are the cut of meat (61%), if the animal was grass-fed (17%), and a tenderness verification/guarantee (15%). For this question, the regions did differ in opinion. In Connecticut, the 3 most important traits/attributes were the cut (63%), if the animal was grass-fed (18%), and nutritional information (16%). In Phoenix, the 3 most important traits/attributes to them are the cut (57%), a tenderness verification/guarantee (20%), and price (19%, Data not presented). Regardless of region, cut was always chosen as the first deciding factor. Collectively, participants chose the breed of cattle (44%), traceability from farm-to-consumer (42%), and if the beef was locally raised or not (42%) as the least important product traits/attributes. Again, there were some differences between the regions for this question. For Connecticut, the traceability from farm-to-consumer (43%), if the beef was locally raised or not (41%), and the breed of cattle the meat comes from (41%) were the least important product traits/attributes. Conversely, in Phoenix, the breed of cattle (53%), if the beef was locally raised or not (46%), and if the meat is certified organic (42%) were the least important product traits/attributes (Data not presented).

Participants also stated that flavor (52%), tenderness (27%), and degree of doneness (25%) are the most important attributes that determine overall satisfaction with the eating experience of a steak (Table 3). Participants chose the accompaniments; potatoes, vegetables, salad, etc.; (56%), thickness of steak (44%), and portion size (42%) as the least important attributes that determine overall satisfaction with the eating experience of a steak.

Participants that are uninformed of the origin of their meat mostly assume that it was from somewhere within the U.S. (62%) (Table 4). When asked what type of origin information they would like to be provided with, a large amount wanted to know state-of-origin (39%), and 38% wanted country-of-origin. When looking at each region specifically, a majority wished to know country-of-origin (39%), region-of-origin (37%), or state-of-origin (36%). In Phoenix, most wanted to be informed of state-of-origin (46%), but several only wanted to know region-of-origin (36%) and 28% did not care about the origin at all (Data not presented).

Table 5 shows that most participants perceive “Nebraska Source Verified Beef” as being of a high quality (35%), coming from corn/grain-fed animals (32%), grading either USDA Prime (31%) or Choice (31%), and being very flavorful (30%). Phoenix participants also thought it signified a product that would be very tender (39%, Data not presented).

When the price of a “regular/unspecified source” steak is $20.95, 61% of participants said they would be willing to pay more for a steak that is verified to have been locally raised (Figure 2). About 23% said they would only pay the same price ($20.95), 11% said they would only buy locally raised beef if it was priced less than the “regular/unspecified source” beef, and 4% said they would not purchase the locally raised beef at all. When the same scenario was presented to participants, but this time with Nebraska source verified beef instead of locally raised, 63% of participants said they would be willing to pay more for the Nebraska product. About 26% said they would only pay the same price ($20.95), 7% said they would only buy the Nebraska raised beef if it was priced less than the “regular/unspecified source” beef, and 3% said they would not purchase the locally raised beef at all.

Tasting Event Survey Results

At the tasting event, most participants chose the steak whose description specified farm-of-origin (37%), while quite a few also chose the steak that specified the state-of-origin (31%)(Table 6). When asked why they chose the steak they did based on the description, the participants responded it was because of either the quality grade/marbling (20%), the tenderness guarantee (20%), or the specification of where cattle were raised (17%). In the online survey, participants also said that quality grade and tenderness were very important factors when deciding among many steak options. In contrast, the participants said that traceability was one of the least important factors when deciding among many steak options. When the participant actually had to make a decision though, it became one of the main deciding factors.

Participants were less likely to order the steak that only listed the Midwest as the origin. However, the participants were more likely to choose the steaks that had either the state ($P = 0.089$) or farm-of-origin ($P = 0.01$) listed. When steak price was added into the model, participants were willing to pay $4.74 more for a steak with state-of-origin specification ($P = 0.09$) and $8.75 more for a steak with farm-of-origin specification ($P = 0.001$) (Figure 3). Consumers perceived no benefit from knowing the region-of-origin (i.e. Midwest). The price had to be discounted $6.20 below the price of the steak that had no origin specified in the description ($P = 0.06$).

About 78% or more of the participants gave the steaks they consumed high ratings (1 or 2 on a 5-point scale) on all attributes, and 73% said they would order the same steak again (Figure 4). Participants were asked where the best beef comes from in the United States, and 83% agreed it was the Midwest (Table 7). When asked which states specifically grow the best beef, the top 3 states named were Nebraska, Texas, and Iowa (63%, 22%, and 21%, respectively). About 84% of participants said they would be willing to pay more for beef that was guaranteed to have a positive eating experience and 65% said they would be willing to pay more for beef that is source-verified (Table 8). The results from both Table 14 and Table 15 imply there is a demand for a Nebraska source-verified beef product.

Implications

This study confirms that even though consumers may say traceability of their beef is not an important factor, when provided as a tool, they will in fact use it to judge the quality of a product. In most cases, consumers are also willing to pay more for a product when they know where it comes from. In turn, this implies a financial benefit for both producers and packers who keep and promote origin records for their cattle. As shown in the results, there appears to be a demand for a Nebraska source verified product. This model could also be applied to other states and other agricultural commodities and create a demand for their product as well. Results of the project were shared with all participating restaurants. Given the success of this project, a demand for source verified beef may present itself in the near future.

References

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Unnevehr, L. 2003. Food safety: Setting and enforcing standards. Choices (First Quarter, 2003):9-13.

Online Survey Figures and Tables

Figure 1. Consumer preferences when ordering menu items at a high-end restaurant

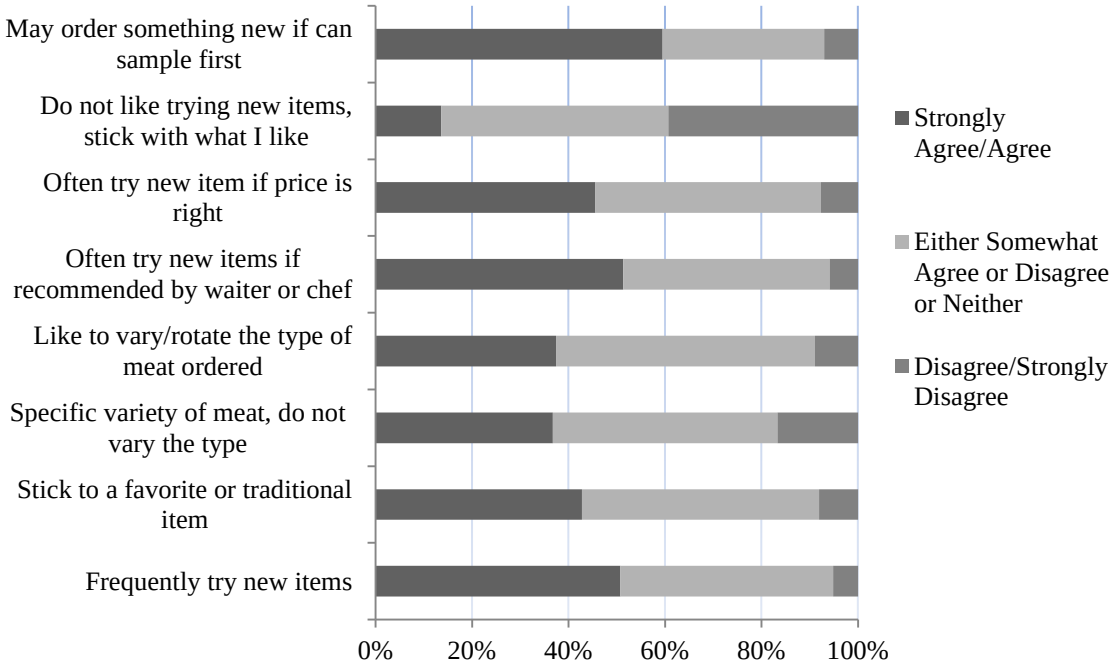


Figure 2. What participants are willing to pay for source-verified beef

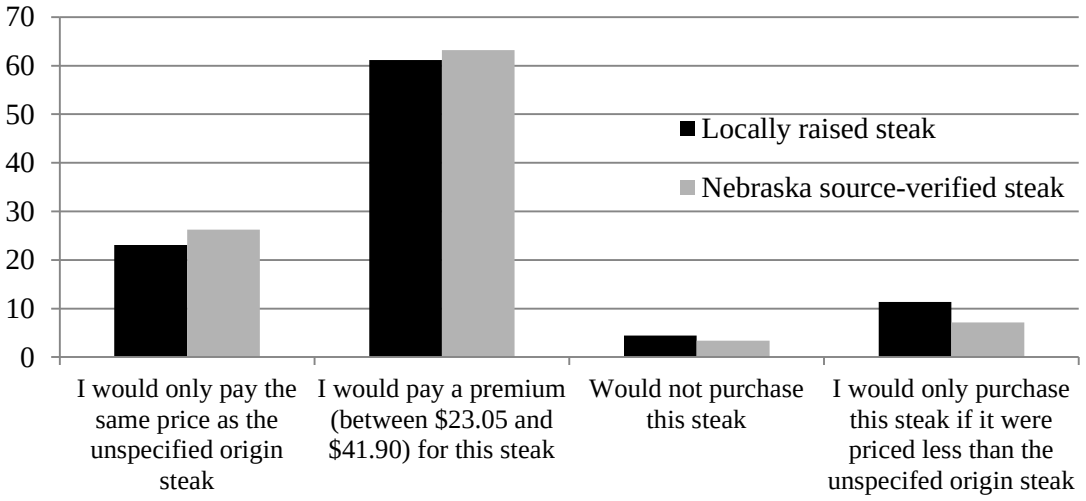


Table 1. Advice seeking in restaurants

Tendency to seek advice	
Almost always	5.33
Sometimes	40.93
Not usually	45.89
Never	7.85
Who consumers seek advice from (multiple answers allowed)	
Server/waiter or wait staff	91.62
Friends/colleagues who are eating dinner with me	22.29
Spouse/partner	37.83
All of the above	0.20
Other	3.05

Table 2. Rank of deciding factors among steak attributes for participants of the on-line survey

Steak traits/attributes consumers use when making a decision among several options	**Rank**
Specific cut (e.g. T-bone, Sirloin)	1
Price	2
Tenderness verification/guarantee	3
USDA Quality Grade (e.g. Prime)	4
Grass-fed	4
Nutritional information	6
Certified organic	7
Other	8
Free range	9
Natural label	10
Aged for at least 14 days	11
Locally raised	12
U.S. origin	13
Traceable from farm-to-consumer	14
Corn-fed or grain-fed	15
Brand (e.g. Certified Angus Beef.)	16
Breed (e.g. Angus, Hereford)	17

Table 3. Rank of factors that determine eating satisfaction for participants of the on-line survey

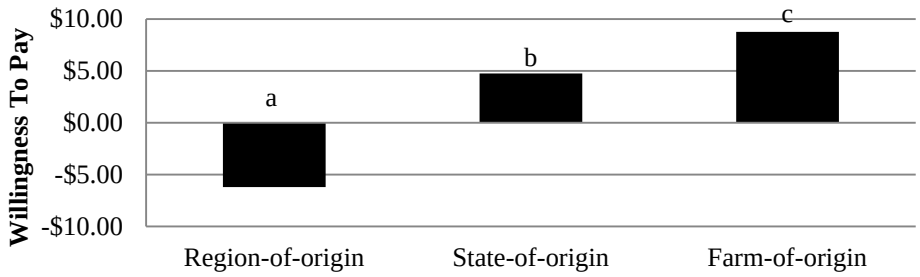
Factors that determine consumer's overall satisfaction with the eating experience of the steak	Rank
Flavor/Taste	1
Tenderness	2
Degree of doneness (matched what I ordered)	3
Juiciness	4
Others	5
Little fat trim/less waste due to fat	6
Aroma/Smell	7
Portion size	8
Thickness of the steak	9
Accompaniments – e.g. potatoes, vegetables, salad	10

Table 4. Meat origin information

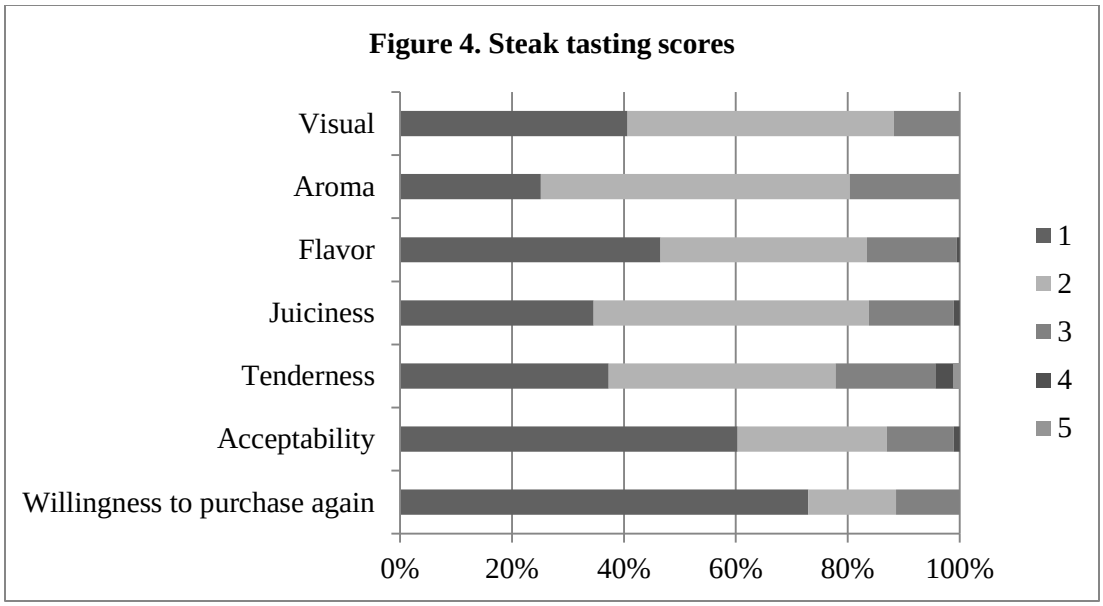
Where consumers perceive meat with an unspecified origin comes from	
Somewhere outside of the U.S. (e.g. imported)	3.24
Somewhere within the U.S.	62.31
Regionally or locally raised	3.14
Unsure	15.70
I do not think about it, I am not really concerned about the origin	15.60
Beef origin information participants would like to be provided (multiple answers possible)	
Country-of-origin	37.79
Region-of-origin (e.g. New England, Southeast, Midwest) where product was produced	33.33
State-of-origin (e.g. New York, Arizona, Nebraska) where product was produced	38.91
Farm of origin where product was produced	16.92
None of the above, I am indifferent about the origin	24.42

Tasting Event Figures and Tables

Figure 3. Premium or discount restaurant consumers paid when ordering (compared to a generic, non-source verified steak) %



[a]P = 0.06
[b]P = 0.09
[c]P < 0.01



Visual, Aroma, and Flavor: 1 = Extremely Desirable and 5 = Extremely Undesirable
Juiciness: 1 = Extremely Juicy and 5 = Extremely Dry
Tenderness: 1 = Extremely Tender and 5 = Extremely Tough
Acceptability: 1 = Extremely Acceptable and 5 = Extremely Unacceptable
Willingness to purchase again: 1 = Yes, 2 = No, 3 = Not sure

Table 5. Participant's perceptions of "Nebraska Source Verified Beef" (multiple answers possible)

Traits	
High/Premium quality	35.06
Corn-fed/Grain-fed	31.51
USDA Choice beef	31.00
USDA Prime beef	30.80
Flavorful	30.19
Very tender	25.63
From farmers who care about the land and animals	20.87
A brand that I would trust	18.84
Lean	13.58
High nutritional value	10.33
Always satisfying	8.81
Grass-fed	8.61
A brand that I would be willing to pay a premium for	7.29
Highly marbled	7.09
Beef for a special occasion	3.55
Low quality	0.81
None of the above apply	27.36

Table 6. Steak selection and reason during the tasting event

Steak	
Rancher (farm-of-origin)	36.65
Nebraska (state-of-origin)	30.89
Classic (no origin specified)	18.32
Western (region-of-origin)	14.14
Criteria used for selecting steaks (multiple answers possible)	
Quality Grade/ Marbling	19.81
Tenderness	19.57
Location where cattle were raised	16.67
Diet of cattle	14.49
Traceability of steak	10.39
Humane handling/animal welfare	4.11
Other	14.96

Table 7. Regions and states panelists believe grow the highest quality beef

Regions	
Midwest	82.91
East Coast	4.52
West Coast	4.02
Southern States	4.02
Northern States	3.52
Not Sure	1.00
Specific States (multiple answers possible)	
NE	63.02
TX	22.40
IA	21.35
KS	19.27
CO	6.25
SD	1.56
WY	2.60
Others	41.68

Table 8. Panelist's willingness to pay

	Yes	**No**
Pay more for beef that has been source verified/ is traceable from farm to plate	65.03	34.97
Pay more for beef that was guaranteed to have a positive eating experience	84.07	15.93