



sense n insight

Consumer value for a TTI in fresh fish packaging

Virpi Korhonen,
Package Testing & Research Ltd
ActinPak meeting, Riga, June 2018



the importance of packaging as printed media is growing

1

Differentiates your product
in store

2

Communicates brand and
product values 24/7

3

Increases product
desirability and promotes
purchase decisions

4

Provides product and usage
information



Sense N Insight measures package's sales potential in three critical moments

STORE

Eye tracking in virtual or real store.

Is your product visible?
Will consumers buy it?

PACKAGING

Packaging evaluation by Value Toolkit®.

What are the strengths and weaknesses of your package?

PRODUCT

Sensory testing and interaction with package.

How does your product match the consumers' wants and needs?

case: TTI in fresh fish packaging

aim

The aim of the study was to measure the value of a TTI (time-temperature indicator) in the packaging of fresh fish fillet.

data

Data was collected through interviews of 12 consumers both as individual interviews and a group discussion with 6 persons.

Of the participants, 11/12 were female and 1/12 male.

The average age of the participants was 45 years, ranging from 35 to 54 years.

All participants purchased packed fresh salmon fillets.

The participants were informed that a typical price range for a fresh rainbow trout or salmon fillet is 15-25 euro/kg, i.e. 9-15 euro/600g.

The interviews were conducted in March 2018 in Finland. Each personal interview lasted around 20 minutes and the group discussion about 1 hour.

Value Toolkit®

Value Toolkit is a research tool for measuring and visualizing consumers' value perceptions.



research procedure

1. First, the participants stated their preference and maximum willingness-to-pay based on their first impression.
2. Next, the participants were provided information on the functions of the TTI technology, as well as the properties of the comparative products.
3. During the packaging evaluation, the participants were presented with attribute pairs and asked to match one or neither attribute with the packaging.
4. After the evaluation, the participants were asked to state their maximum willingness-to-pay based on the second impression. This was done to investigate the influence of the TTI technology on the perceived value of the product.

Studied product concepts

Private label product, 600g
Origin: Finland



Vacuum packaged, specially fed
rainbow trout fillet

Private label product with TTI, 600g
Origin: Norway



Vacuum packaged salmon fillet with
a Tempix® time-temperature indicator

Retailer packed product, 600 g
Origin: Norway



Salmon fillet packed by supermarket
retailer on a PS tray under cling film

Tempix® indicator for Lidl Finland for indicating temperature abuse



The activator liquid propagates in the label every time there is a temperature abuse.

Big temperature abuse
= faster propagation

No temperature abuse
= the propagation stops



THE time is set by the distance of the activator liquid to the bar(s) or barcode.

THE DISTANCE IN MM SETS THE TIME AND THE SIZE OF THE TEMPERATURE ABUSE. THE LONGER THE DISTANCE – THE BIGGER THE TEMPERATURE ABUSE

results

SNI Scores for packages' sales potential

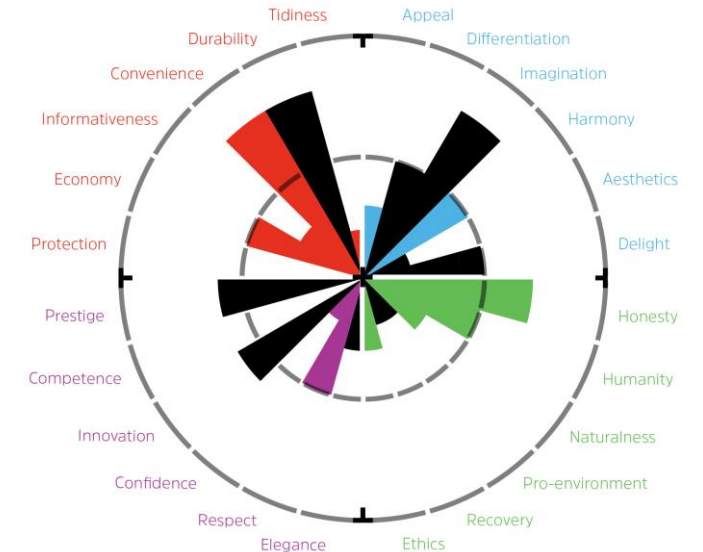
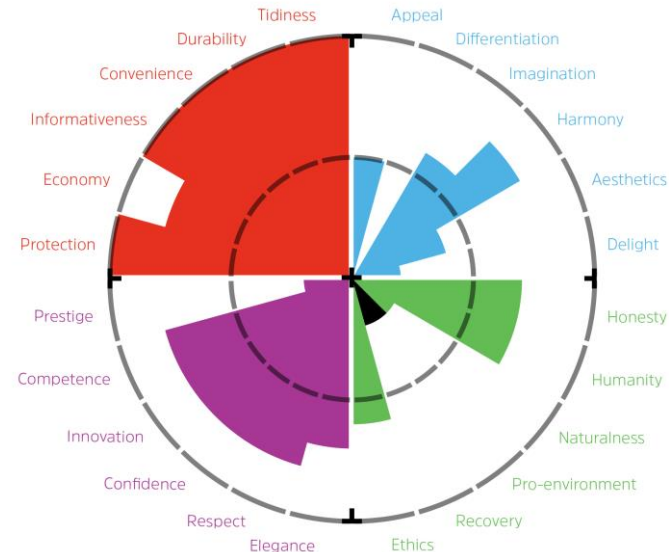
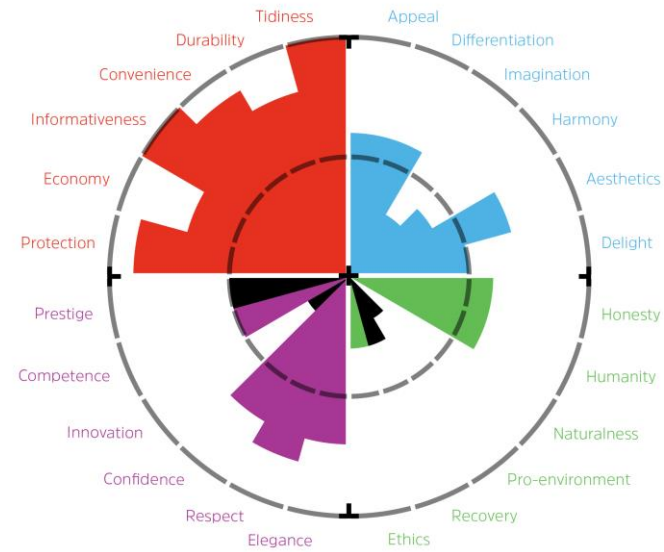
SNI Scores for packages' sales potential



results

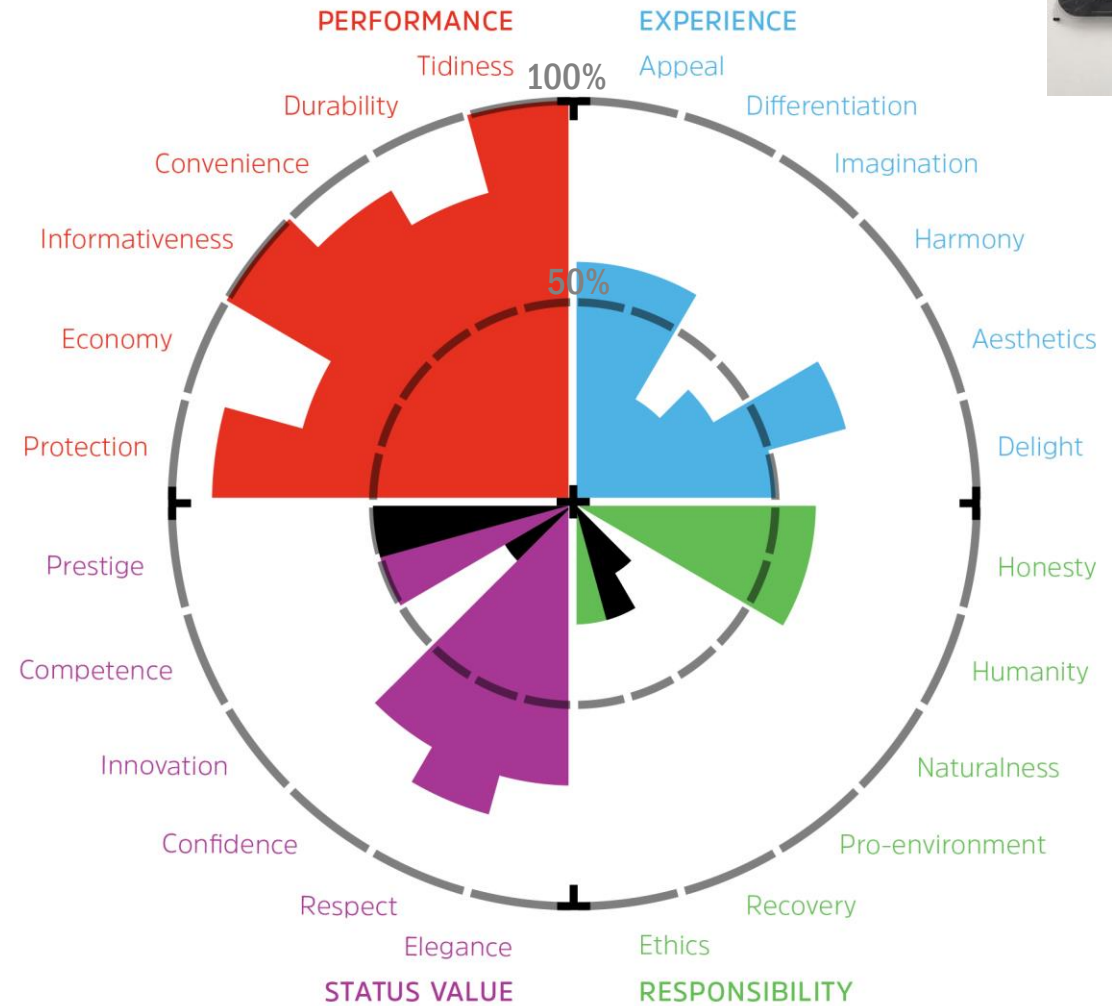
value profiles

value profiles



TOP ATTRIBUTES

Comprehensible	100 %
Functional	100 %
Tidy	100 %
Informative	100 %
Hygienic	100 %
Safe	92 %
Convenient	92 %
Respected	92 %
Disposable	92 %
Durable, Strong	83 %
Protective, Economical	
Convincing, Aesthetic,	
Honest	
Efficient, Tempting	75 %
Conspicuous, Distinguishable	
Presentable, Humane, Elegant	
Standard	



Comments on private label fish

Familiar fillet, I want it to be in the shape of fillet. Familiar and safe. For example, if you want to spice it raw, such a fillet would be a little more luxurious.

- Woman, 48

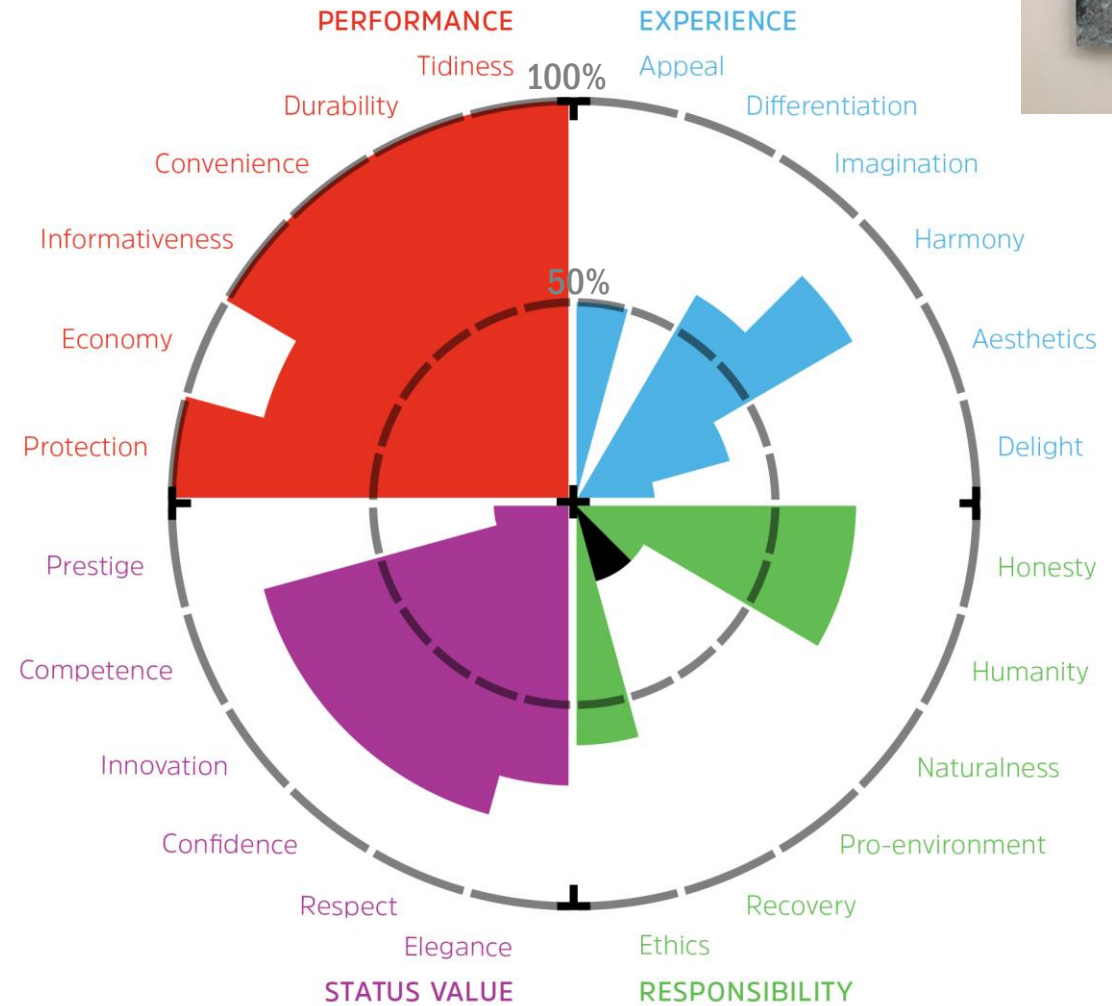
Black colour creates an impression that this is a bit better, not just a basic thing. Maybe I think this has less fat or is otherwise better. Finnish. It's easy to understand and I get a feeling that this is delicious. - Woman, 47 years old

I liked the fact that the size is easy to comprehend. I consider these products pretty good, they are good value for the money. I like private label products because I look at prices a lot. Finnish origin is also important. There is a sense of something deluxe in that, it's funny how a typeface can contribute and create that impression. Black and silver and the serving suggestion on the packaging. We have a large family, so I always think that there must be a full fillet even though these were all of the same size.

- Woman, 42

TOP ATTRIBUTES

Comprehensible	100 %
Convenient	100 %
Safe	100 %
Functional	100 %
Tidy	100 %
Hygienic	100 %
Durable	100 %
Economical	92 %
Expert	92 %
Informative	92 %
Protective	92 %
Convincing	92 %
Strong	92 %
Respected	92 %
Calm	92 %
Efficient, Forerunner , Authentic	83 %
Close , Innovative , Disposable	
Elegant, Presentable, Skilful	75 %
Responsible , Harmonious	
Imaginative , Esteemed , Confident	
Honest , Ethical	



Comments on private label fish with TTI

Fun and convenient this Tempix. I would probably scan the QR code. Easy to carry in a vacuum pack. Adds some value to the product, but I chose it because of the brand. - Woman, 40

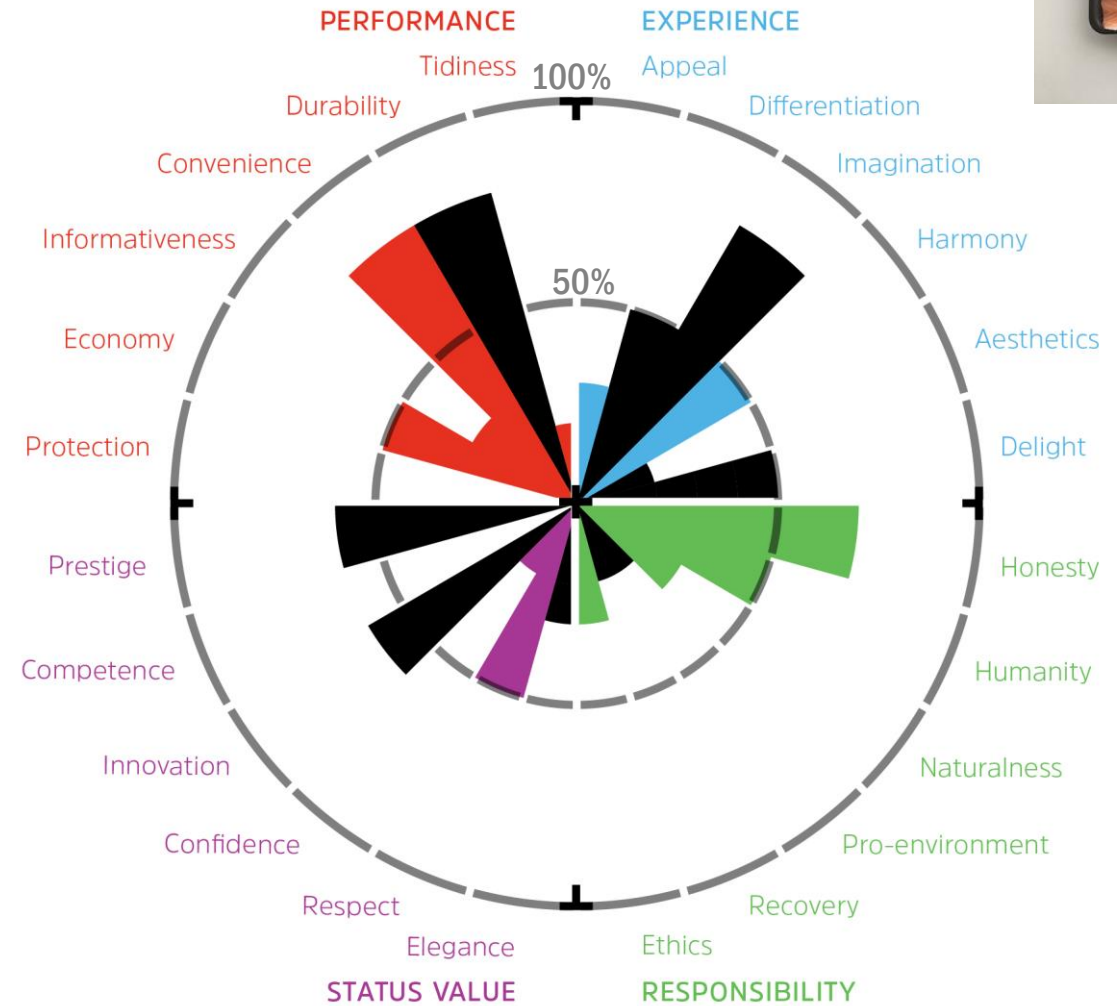
Here I liked it that the cold chain does not break. In fish that is really important. Otherwise the packaging is a bit boring. However, I would have chosen this because of the meter, it's more reliable than the others. My cat got sick from spoiled herring, that I bought at the counter. It has never tasted herring since. I was pretty angry at the store.
- Woman, 51

Considering a woman in her 50's like me, with presbyopia, I cannot see the fish and the ice bed in the package. This packing is a bit difficult to figure out. If it isn't in direct light, I would not notice this package. The fish should be more visible. Bigger window. The indicator sounds really smart. It's guaranteed to be fresh, so when you open the package it will not release that nasty smell on your face. - Woman, 48

It kind of annoys me that the fish is folded, but I admit that the package has less plastic. And this ice crush reminded me of fish's skin and it's a little unpleasant. The fish should be more visible. - Woman, 47

TOP ATTRIBUTES

Comprehensible	92 %
Fragile	92 %
Conservative	92 %
Honest, Convenient	83 %
Functional, Weak	
Esteemed, Efficient	75 %
Economical, Unimaginative	
Common, Disposable, Standard	



Comments on retailer packaged fish

A bit dull [packaging] as there is nothing extra. Somewhat annoying in the sense that the packaging is weak and may break, unlike pre-packaged.
- Woman, 35

If it is not already broken, then it will be break in the shopping bag at the latest. Yogurt cans, milk cartons or other packaging can break it. It does not raise any confidence, I would definitely buy the pre-packaged one. - Woman, 48

With these packs I do not always think that the fish would always be fresh. I'm afraid that someone has stuffed those old fillets in the packs. If you buy it, then it should be prepared immediately.
- Woman, 47

You'll think that there's the fish. After all, this package is terribly uninformative. Everything you want to know you'll have to ask the employees. There is no guarantee of freshness, especially when it's packaged by the retailer. These packages are always the biggest disappointments, although I always go to buy them, which is a bit stupid. The most horrible thing is when the package breaks down in the bag, which has happened many times.
- Woman, 35

Here are three dates: catch date, packing date and expiration date. If I buy salmon, then I'll first check if there is a special offer or a lot of them. It gives you an impression that there is such an offer and that is why these are packed.
- Woman, 42

results

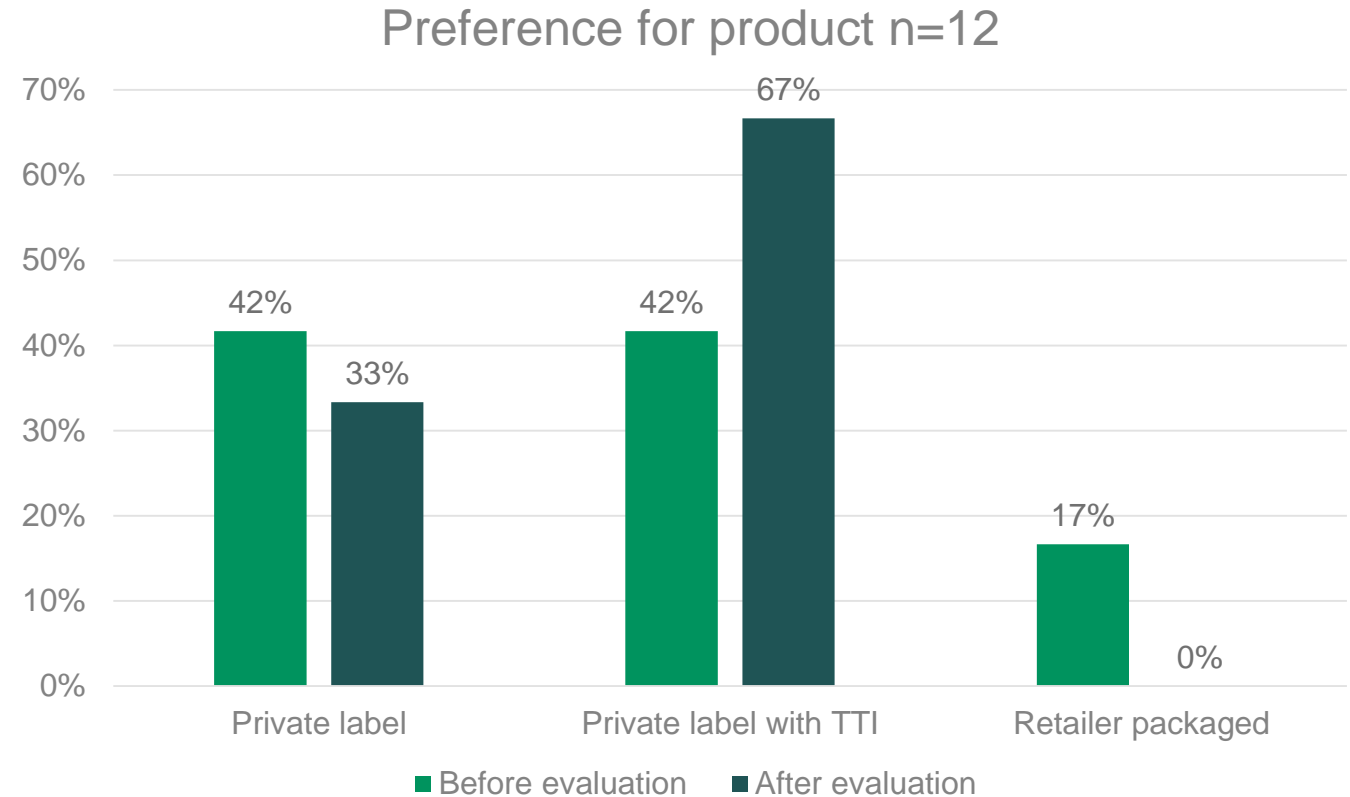
preference and willingness-to-pay

TTI resulted in higher preference

Based on the first impression, the private label products were equally preferred (42%), as the retailer packaged fish was preferred by 17%.

After all packages were examined and evaluated more closely, the participants stated their preferred packaging.

Based on second impression, 67% preferred the private label with TTI, 33 % the private label, and no one chose the retailer packaged fish.

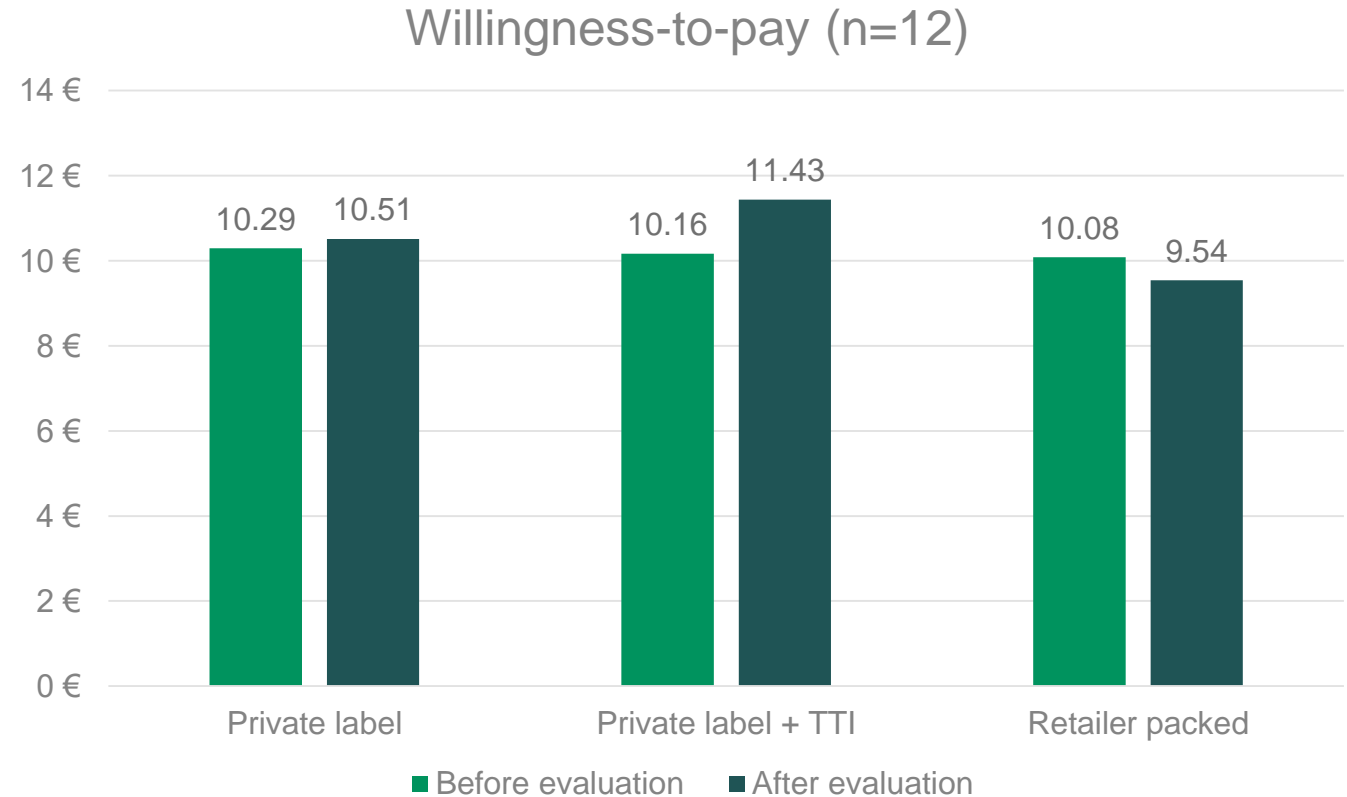


TTI increased willingness-to-pay

Based on the first impression, the participants offered 10.16 euro for the product with TTI.

After evaluation, the average offer for the product with the TTI was 11.43 euro (1.27 euro/+12,5%) while the average offer for the retailer packed product decreased to 9.54 euro (-0.54 euro/-13%).

Based on the findings, the TTI increased the value of the product.



Comments on willingness-to-pay

The indicator raised my willingness-to-pay a lot. I'm so conservative that I have not trusted pre-packaged fish, but I have purchased more than a few bad-quality fish fillets at the service counter, so lately I have only bought pre-packed fish.

- Woman, 35

My first expression was this must be expensive. Yes, the indicator increased my trust in the product. - Woman, 52

Principally a good thing, but I do not know if I'm willing to pay much more for the technology. I have never gotten bad fish. - Woman, 45

You really have to look at it long and hard before you get it. I think that fish always needs cold temperatures, so I did not immediately realize that there is such a meter. This is probably quite hard to point out, people won't read it so closely. If this would be the same price as another kind of packed fish and I would understand the indicator, then I would buy this. But somehow I think this might be more expensive. - Woman, 42

Yes, I would certainly consider this "cold ride to your fish" because we eat a lot of salmon and nothing is more disgusting than when you open that package and it gives off that smell. These fish have huge quality differences. This brand has always been better than the fish purchased elsewhere. That's probably because of the indicator. - Woman, 45

suggested improvements for the TTI

A more visible and interpretable indicator for the consumers

It was only when you mentioned about that **temperature thing** that I thought it was a good thing. But I did not realize it before you told me. It did not open up to me very quickly. Somehow, it should be explained very clearly that here is this **freshness indicator**, and the product is certainly fresh. - Woman, 47

It's a good idea to bring up that technology, I hadn't noticed it before, even though I have purchased the product. Quite often these labels are easy to pass by, I do not notice them when I choose fish. It's pretty good that someone has been thinking about these things, but whether people notice it and look at them in store, that's another thing. Now that you said that there is this Tempix **thermometer**, maybe it raised some trust in the product. - Woman, 35

Clearer communication of the benefits of the indicator

The expression “cold ride for the fish” does not really create an impression that there is an indicator. It should say something like “**this fish is guaranteed fresh**“, and not “cold ride”. A little like Atria’s “tenderness guarantee”. Why can’t it be “**freshness guarantee**”? - Woman, 45

summary

TTI increased both trust and value for the product

The product with the TTI was perceived as safe, innovative, and delivering expertise.

The majority of the participants stated that the Tempix® technology increased their trust for the product. They also started to question the safety and trustworthy of the retailer packed fish.

The TTI increased the value of the product by 12.5% (1.27 euro) in terms of willingness-to-pay. The cost of the TTI is between 1-2 cents.



sense n insight

senseninsight.com

Myyrmanni Shopping Centre
3rd floor
Iskoskuja 3
FIN-01600 Vantaa

sales@senseninsight.com

More information

VIRPI KORHONEN

Package Testing & Research Ltd

virpi.korhonen@senseninsight.com

+358400697973