LPRC: Enhanced Public View Monitors with Picture-in-Picture
Department Store Customer Surveys

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Loss Prevention Research Council
Tracy L. Johns, Ph.D.
Read Hayes, Ph.D.
Kyle Grottini

LPRC
Loss Prevention Research Council

Enhanced Public View Monitors with Picture-in-Picture: Department Store StoreLab Customer Surveys

Introduction & Background

In order to better understand customer views of enhanced public view monitors (ePVMs) and enhanced public view monitors with picture-in-picture (ePVM-PIP) capabilities, the Loss Prevention Research Council (LPRC) research team conducted a series of interviews with store customers to obtain their perceptions of these interventions. The ePVM was located near the center of the store, and displayed real-time images of customers shopping for health and beauty products in the HBA aisle. The ePVM-PIP was located in the electronics aisle, and displayed real-time images of customers shopping for various electronic equipment and accessories, along with a picture-in-picture of a uniformed security guard.

The purpose of the customer interviews was to better understand awareness of each intervention; reaction to the interventions; interest in using the interventions so that products can be maintained in open displays (rather than kept locked or behind the counter); the impact of the interventions on willingness to purchase products; and, the impact of the interventions on perceptions of security in the store.

To this end, a series of surveys was completed in the Gainesville Department store StoreLab. This report details the responses of 40 customers (20 regarding ePVMs and 20 regarding ePVMs with PIP) at the Gainesville Department store store in June 2014. About three-quarters (77.5%) of the respondents were female and about half (55.0%) were age 55 or older.

The LPRC research team posits the following hypotheses about customer perceptions of ePVMs:

- There is no difference in level of customer concern between the ePVMs [*Not Supported*]
- Customers feel safer in the store environment with the ePVM with PIP when compared to the non-PIP [*Not supported*]
- Customers prefer the current asset protection measure over being required to get an associate [*Supported*]
- There is no difference between ePVM type on effects on customer purchasing behavior [*Supported*]
- Customers feel that the ePVM with PIP is a more effective theft deterrent than non-PIP [*Not supported*]
- Younger customers are less likely to be concerned about the ePVM than older customers [*Not supported*]

Executive Summary

- More than half (55.0%) of the interviewed customers identified public view monitors as security measures in the area of the store in which they were interviewed.
- Overall, half (n=11) of the respondents who noticed the ePVMs without prompting noted the "live images on screen." Just one of the nine respondents who noticed the ePVM with PIP without prompting indicated seeing the PIP image of the security guard on the screen upon first encountering the device.
- Overall, about one in three (35.0%) respondents believed that someone in another location in the store was watching the video footage from ePVM monitors in real time. A slightly higher percentage

of those who were interviewed at locations in the store with ePVM-PIPs than those interviewed at ePVMs without PIP believed that someone in another location in the store was watching the video footage in real time. Differences between the two groups were not statistically significant.

- Overall, about two in three (67.5%) respondents indicated that they are "not at all concerned" about being monitored by ePVMs while they shop. While only two respondents (5.0%) said they were "very concerned," both of these respondents were interviewed at monitors with PIP displays. The average rating for concern for the overall sample on a 5-point scale was 1.58. The average rating for those interviewed at ePVMs without PIP was 1.25 and for those interviewed at ePVMs with PIP was 1.90. A t-test reveals this difference to be statistically significant (p<.05). Thus, respondents were significantly more likely to express concern about being monitored by ePVMs with PIP than ePVMs without PIP, although both groups had average levels of concern on the very low end of the scale.

- Overall, about half (47.5%) of the respondents think ePVMs are effective (rating of "4" or "5") at preventing shoplifting. The average rating for effectiveness for the overall sample on a 5-point scale was 3.53. The average rating for those interviewed at ePVMs without PIP was 3.35 and for those interviewed at ePVMs with PIP was 3.68. A t-test reveals that this difference is not statistically significant.

- Nearly all (90.0%) of the respondents said that they prefer ePVMs to keeping products behind a counter or in a locked display case requiring associate assistance. Differences between the two groups were not statistically significant.

- About two in three (67.5%) respondents said that ePVMs made them "equally as likely" to buy the product, and nearly one in three (30.0%) said the presence of ePVMs made them "more likely" to purchase the product. Just one respondent (2.5%), interviewed at the ePVM-PIP, said he or she was "less likely" to buy an item with the ePVM present. Differences between the two groups were not statistically significant.

- Three in five (60.0%) respondents said that ePVMs made them "equally as safe" as they might otherwise feel in the store and one in four (25.0%) said the presence of ePVMs made them feel "more safe." Just two respondents (5.0%), both interviewed at the ePVM-PIP, said they felt "less safe" than they might otherwise feel in the store with the ePVM present. Differences between the two groups were not statistically significant.

Recommendations

The ePVM has been proven effective in reducing shrink of high risk products. However with the ePVM, it is important to continuously improve it to increase the likelihood that a potential shoplifter will be able to see it and be deterred from theft because of it. The introduction of picture-in-picture capability to the ePVM portraying a guard is thought to add credibility to the ePVM, where now a potential offender can see that a person is "monitoring" the area. Preliminary studies conducted by the LPRC have shown that the ePVM-PIP can deter offenders from theft that the ePVM without PIP capability could not.

However, it is always a concern that more threatening asset protection measures may adversely impact the customer's shopping experience. The ePVM is an area solution that doesn't directly impede the

customer from analyzing the product like locking items behind glass. However, it does introduce the concern that honest customers are being monitored and what the retailers are doing with the footage.

To measure a shopper's comfort level, this survey asked them their level of comfort with being monitored. 90% of customers rated their level of concern as indifferent to "not at all concerned". There were two customers in this study who rated themselves as highly concerned, and mainly took exception to the fact that loss prevention methods treats everyone as potential thieves. Additionally, only one respondent said they would be less likely to purchase items at a store with ePVM.

Despite these few aberrations, the majority of customers are actually enthusiastic about the presence of the ePVMs.   Most of the customers indicated they would be equally or more likely to purchase an item in a store with ePVMs. The LPRC believes that this is due to the idea that customers want to feel safe in the store built environment. An establishment that doesn't take proactive measures to deter shoplifters in higher risk areas may eventually find themselves prone to more serious crimes such as robberies. If a customer doesn't feel safe in a particular area, they will go out of their way to find an area that they do feel safe in, and that will likely be in another store.

Detailed Results

Noticed ePVM without Prompting

Customers were first asked to identify any security measures they noticed in the area of the store in which they were interviewed. The graph below presents the percentage of respondents who noticed the ePVMs as a security measure.
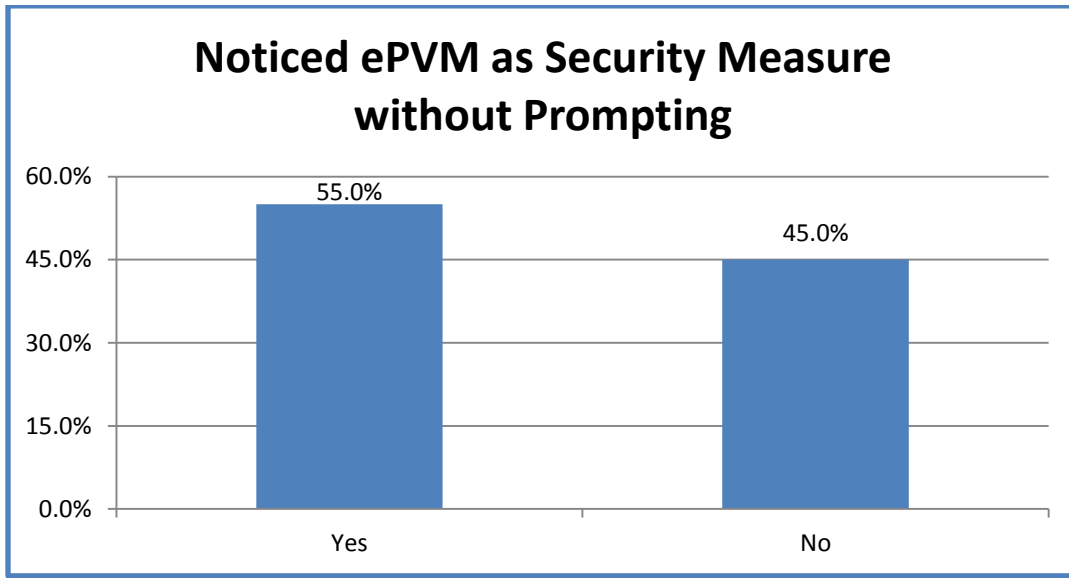
Noticed ePVM as Security Measure without Prompting

Yes	No
55.0%	45.0%

More than half (55.0%) of the interviewed customers identified public view monitors as security measures in the area of the store in which they were interviewed.

Security Measures Noticed

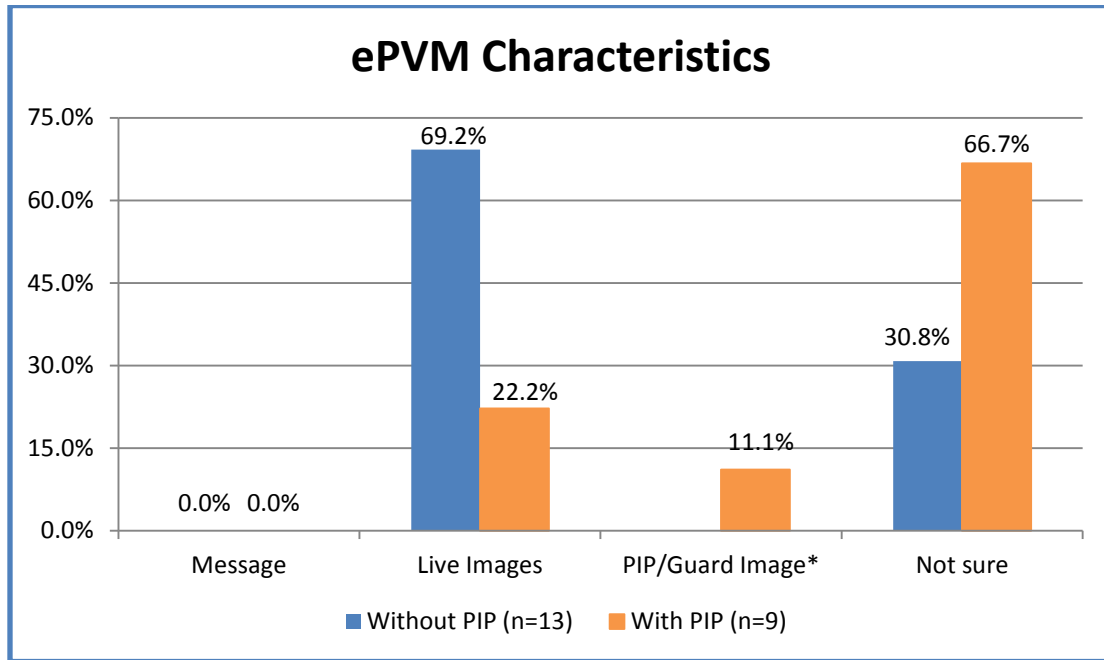| Signage	Camera domes	Banding/ Packaging	ePVMs	Fixtures	Other
2	15	5	22	2	3
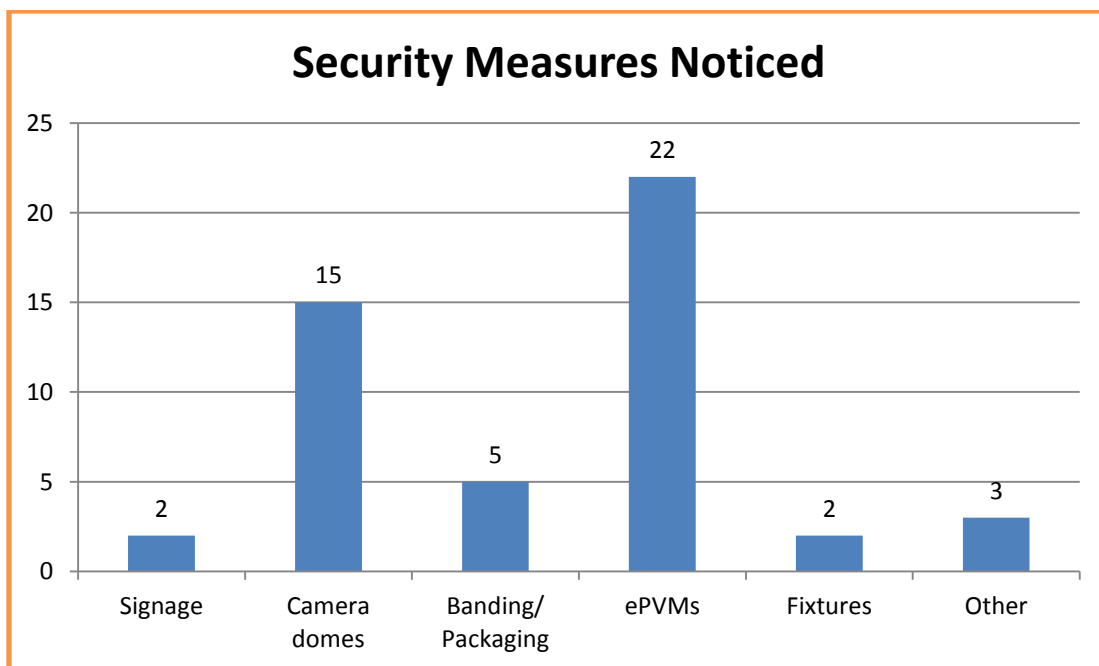
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Respondents were most likely to notice ePVMs (n=22) and camera domes (n=15) as security measures.

ePVM Characteristics

Those customers who noticed the ePVMs in the area of the store in which they were interviewed were next asked what characteristics they noticed about the ePVMs.

ePVM Characteristics

	Message	Live Images	PIP/Guard Image*	Not sure
Without PIP (n=13)	0.0%	69.2%		30.8%
With PIP (n=9)	0.0%	22.2%	11.1%	66.7%

Few respondents noticed specific characteristics of the public view monitors on first encountering them. Overall, half (n=11) of the respondents who noticed the ePVMs without prompting noted the "live images on screen." Just one of the nine respondents who noticed the ePVM with PIP without prompting indicated seeing the PIP image of the security guard on the screen upon first encountering the device.

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Immediate Reaction to Monitors

The monitors were pointed out to those who did not notice them without prompting, and then all respondents were asked to describe their immediate reactions to the ePVM. These responses are categorized and presented below.

ePVM without PIP	Frequency
Not bothered, not concerned / Nothing / Don't care	10
Why are there three on one aisle?	1
Sign of the times - darn shame	1
Shocking	1
Mixed. Good as a deterrent, bad as lots of people consider them overkill	1
Like it - stops shoplifting	1
Kinda eerie - someone watching	1
Good thing, everywhere should have them	1
Even busy, someone is watching	1
Cool - suppose it's safer for store, impressed	1
ePVM with PIP	**Frequency**
Not bothered, not concerned / Nothing / Don't care	9
Good / Good thing / Good, safe	3
Uneasy at people watching	1
Too small, wrong place	1
Some aisles, unnecessary	1
Better than secret shoppers	1
Little weird, creepy	1
Intimidating immediately	1
General concern, startling, but necessary	1
Confused (made face)	1

Feelings about the Picture-in-Picture

Respondents who were interviewed at the ePVM with PIP were also asked for their feelings about the picture-in-picture image of the guard. These responses are categorized and presented below.

ePVM with PIP	Frequency
Didn't notice	4
It's fine	3
Noise is annoying	3
Nice feature	1
Good, especially for young kids	1
Glad someone's watching	1
Also intimidating	1
It's a bit creepy	1
Flashing is annoying	1
Distracting	1
Needs to be bigger	1

| No opinion / Not sure	1

Changes to Monitors

All respondents were also asked: "Do you think the monitor could or should be changed in any way to make it more effective?" These responses are categorized and presented below.

ePVM without PIP	Frequency
Someone needs to watch the feed	1
Depends on who's watching	1
Signs - make them more obvious	1
Bigger - make people more aware, signs	1
Big camera looking down. Lights catch their eye.	1
Don't make noise like some places.	1
Motion sensors, so each person is definitely checked	1
Follow people with drones	1
More/ on every aisle	1
ePVM with PIP	**Frequency**
Bigger	4
Higher placement	2
More obvious	3
Different places, hidden cameras	1
Not in corner	1
Put in people's faces	1
Maybe signs?	1
We don't need to hear sound	1
No noise - but is it a deterrent?	1
Light and PIP are distracting	1
Is someone actually watching?	1

Real Time Monitoring

Respondents were next asked: "Do you believe that there is someone in another location in the store watching the video footage from the monitor in real time?"
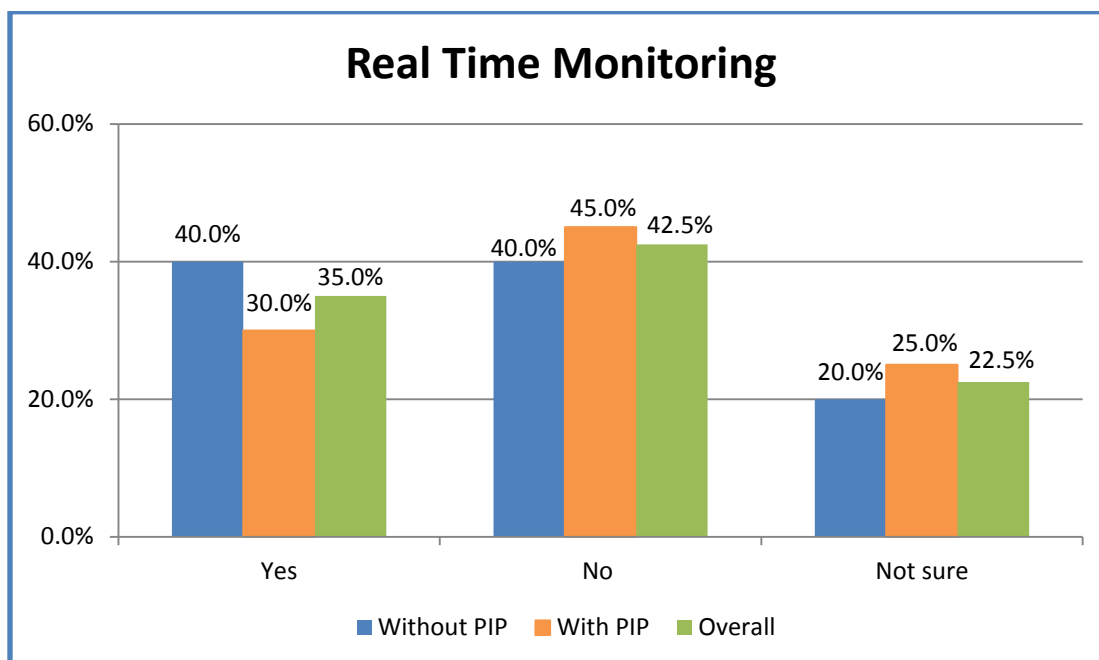
Overall, about one in three (35.0%) respondents believed that someone in another location in the store was watching the video footage from ePVM monitors in real time. A slightly higher percentage of those who were interviewed at locations in the store with ePVM-PIPs than those interviewed at ePVMs without PIP believed that someone in another location in the store was watching the video footage in real time.

Differences between the two groups were not statistically significant.

Why not?

Those said they did not believe the video footage was being monitored in real time were also asked why they felt that way ("Why not?") These responses are categorized and presented below.

ePVM without PIP	Frequency
Too costly	5
Inefficient / Low success rate	2
Most likely recorded & monitored at later time	4
ePVM with PIP	**Frequency**
Not enough personnel	3
Waste of time & money	2
Expensive	1
Hard to monitor	1

Level of Concern with ePVMs

Customers were asked to rate their level of concern "about being monitored with this technology" while they shop on a scale from 1 to 5, where 1 is "not at all concerned" and 5 is "very concerned."
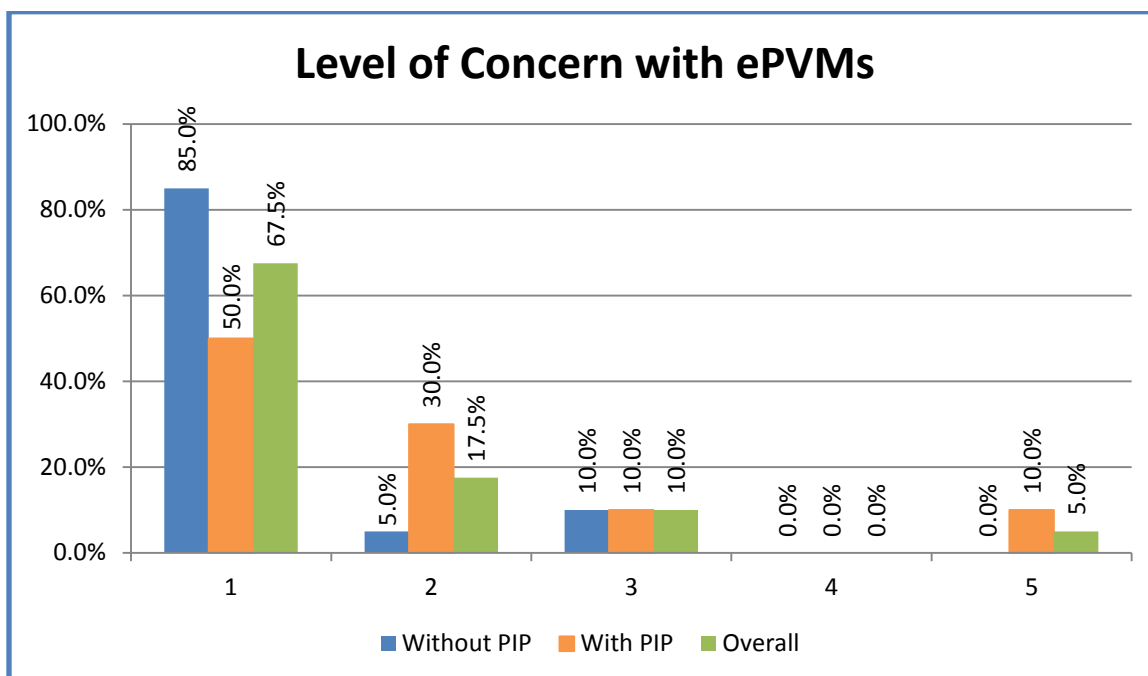
Overall, about two in three (67.5%) respondents indicated that they are "not at all concerned" about being monitored by ePVMs while they shop. While only two respondents (5.0%) said they were "very concerned," both of these respondents were interviewed at monitors with PIP displays.

	Average Rating
ePVM without PIP	1.25
ePVM with PIP	1.90
Overall Sample	1.58

The average rating for concern for the overall sample on a 5-point scale was 1.58. The average rating for those interviewed at ePVMs without PIP was 1.25 and for those interviewed at ePVMs with PIP was 1.90. A t-test reveals this difference to be statistically significant ($p<.05$). Thus, respondents were significantly more likely to express concern about being monitored by ePVMs with PIP than ePVMs without PIP, although both groups had average levels of concern on the very low end of the scale.

Why are you concerned?

Those who were concerned (rating of "4" or "5") were asked, "Why are you concerned?" These responses are categorized and presented below.

ePVM with PIP	Frequency
Not everybody is alike - all are not thieves	1
If I had children or a wedgie; display would be disturbing or creepy	1

Level of Effectiveness of ePVMs

Customers were next asked to rate the effectiveness of "public view monitors like this" at preventing shoplifting using a scale from 1 to 5, where 1 is "not at all effective" and 5 is "very effective."
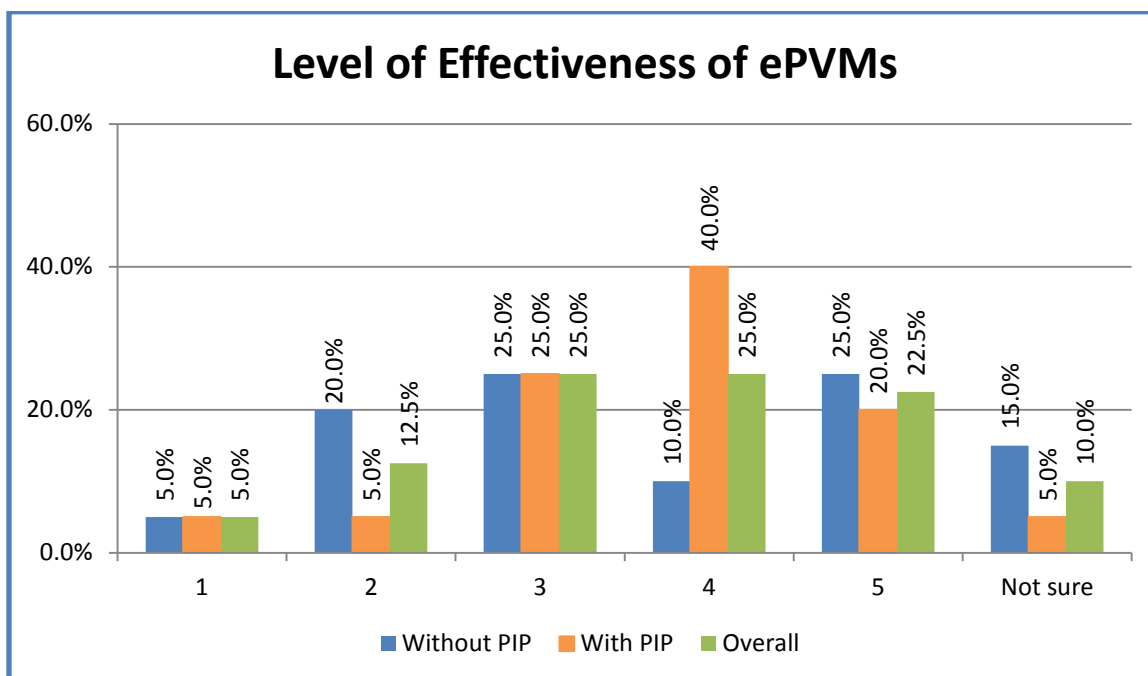
Overall, about half (47.5%) of the respondents think ePVMs are effective (rating of "4" or "5") at preventing shoplifting.

	Average Rating
ePVM without PIP	3.35
ePVM with PIP	3.68
Overall Sample	3.53

The average rating for effectiveness for the overall sample on a 5-point scale was 3.53. The average rating for those interviewed at ePVMs without PIP was 3.35 and for those interviewed at ePVMs with PIP was 3.68. A t-test reveals that this difference is not statistically significant.

Why is that?

Respondents were also asked to detail why they believed ePVMs to be effective or not. These responses are categorized and presented below.

Not Effective (Ratings of "1" or "2")

ePVM without PIP	Frequency
Person going to steal will find a blind spot	1
Because people do it anyways	1
Most don't believe they're being watched	1
Need a bigger one	1

Someone can steal and walk out if no one is watching	1
ePVM with PIP	**Frequency**
People are people; still going to have theft	1

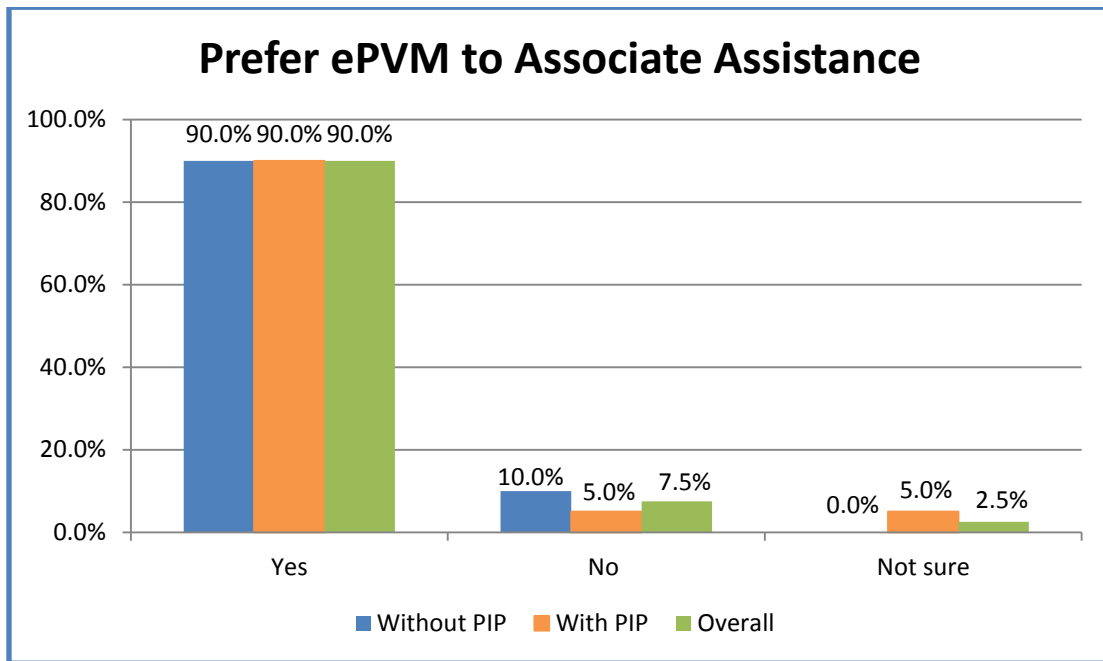## Neither Effective nor Ineffective (Rating of "3" or "Not sure")

ePVM without PIP	Frequency
Always going to be shoplifters	1
There are ways around them	1
One person isn't going to catch all thieves	1
Depends on item, small items are easier	1
What's to stop someone blocking the view - place higher	1
If someone is watching it is more effective	1
Not on all aisles	1
Couldn't be sure they've helped yet	1
ePVM with PIP	**Frequency**
People will still shoplift	1
People will get used to it, pros are still capable	1
If a person is intent on shoplifting they will find a way	1
Deter potentials but not professionals	1
Being watched is deterrent but also creepy	1

Effective (Ratings of "4" or "5")

ePVM without PIP	Frequency
Instant deterrent	1
Obvious observation is deterring	1
Because deterrent, in their face	1
Make people think twice about causing trouble	1
You know someone is watching	1
Obvious, but light would help	1
People on camera don't do anything	1
ePVM with PIP	**Frequency**
Seeing yourself being watched is a deterrent	1
Deterring potential shoplifters	1
Visible	1
Too many people watching	1
People know they're being watched are less apt to steal	1
People hesitate on camera	1
Become aware that recording is ongoing	1
Keeps people on their toes	1
Don't see it, can't help	1
Good to have - preventive	1
Can't stop a thief, but still useful	1
Someone will know how to beat the system	1

Prefer ePVM to Associate Assistance

Customers were next read the following statement: "Use of public view monitors as a security measure allows the store to make the product available to you on the shelf, rather than keeping it behind a counter or in a locked display that requires you to ask for employee assistance to access the product." Then, they were asked: "Do you prefer this type of security measure to keeping products behind a counter or in a locked display case?"

Figure title: Prefer ePVM to Associate Assistance

|	Yes	No	Not sure
Without PIP	90.0%	10.0%	0.0%
With PIP	90.0%	5.0%	5.0%
Overall	90.0%	7.5%	2.5%

Nearly all (90.0%) of the respondents said that they prefer ePVMs to keeping products behind a counter or in a locked display case requiring associate assistance.

Differences between the two groups were not statistically significant.

Likeliness to Purchase with ePVM

Customers were next asked: "Would this monitor make you more likely, equally as likely, or less likely to buy the product at this store?"
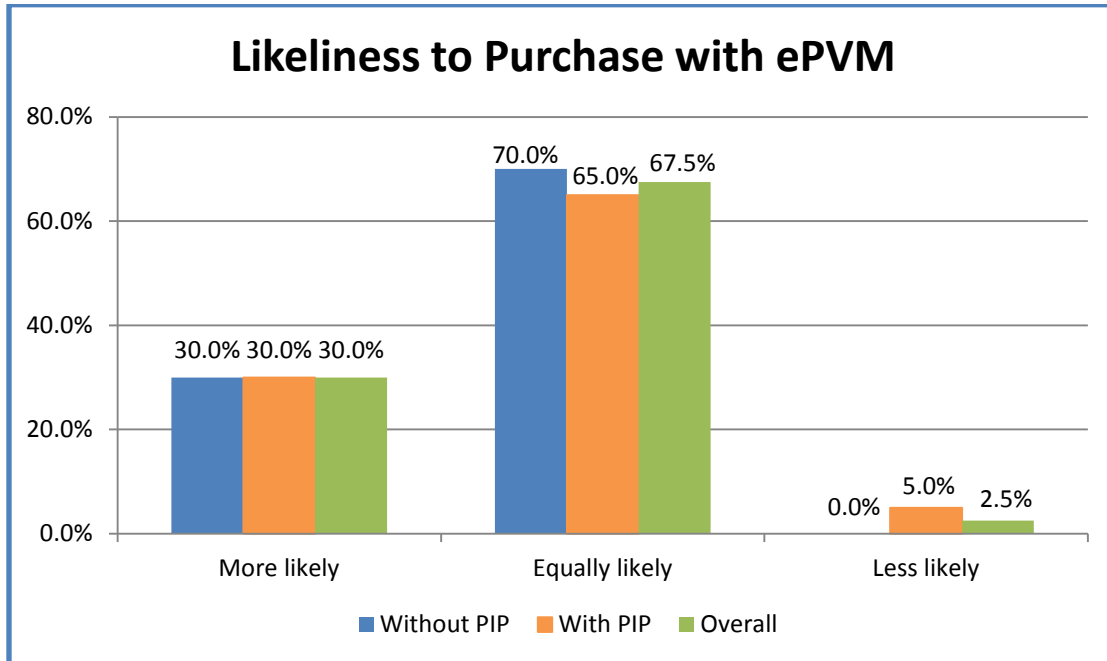
About two in three (67.5%) respondents said that ePVMs made them "equally as likely" to buy the product, and nearly one in three (30.0%) said the presence of ePVMs made them "more likely" to purchase the product. Just one respondent (2.5%), interviewed at the ePVM-PIP, said he or she was "less likely" to buy an item with the ePVM present.

Differences between the two groups were not statistically significant.

Prefer to Purchase Elsewhere

The respondent who was "less likely" to make a purchase was asked, "Would you prefer to buy the product at a store without public view monitors?" He or she said "yes."

Level of Safety

Customers were next asked: "Does this public view monitor make you feel more safe, equally as safe, or less safe than you might otherwise feel in the store?"
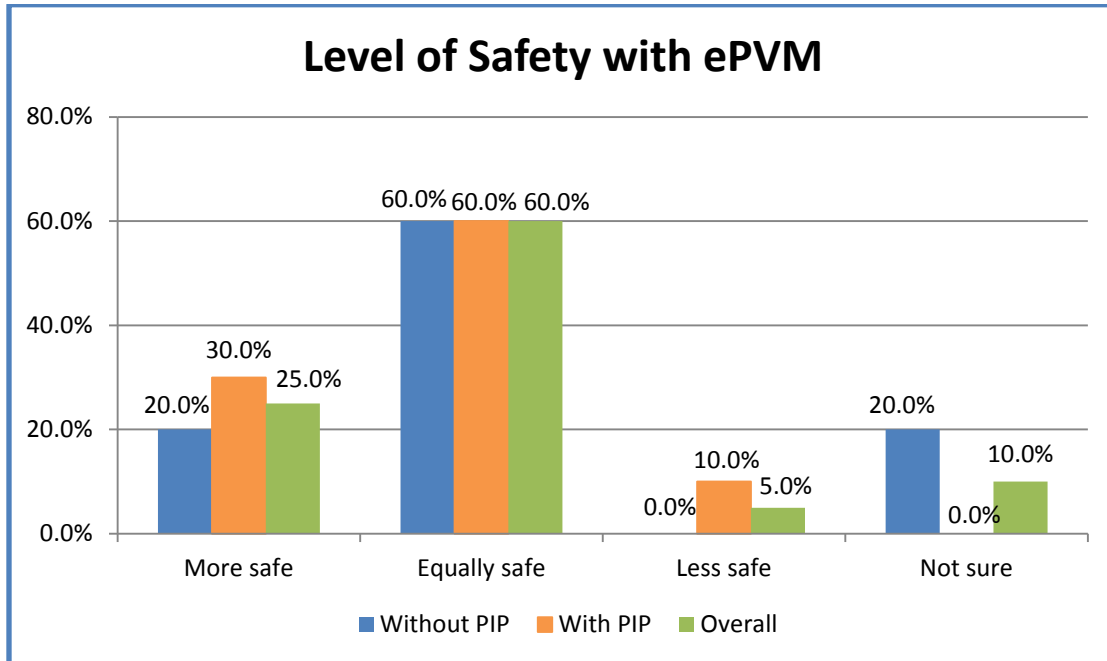
Three in five (60.0%) respondents said that ePVMs made them "equally as safe" as they might otherwise feel in the store and one in four (25.0%) said the presence of ePVMs made them feel "more safe." Just two respondents (5.0%), both interviewed at the ePVM-PIP, said they felt "less safe" than they might otherwise feel in the store with the ePVM present.

Differences between the two groups were not statistically significant.

Comments

Finally, respondents were asked to provide any other comments they would like to share about public view monitors. These comments are presented below.

ePVM without PIP
As deterrent, saves store embarrassment and adds certainty
Cool setup - available for home? Probably wouldn't have noticed without survey
Everywhere should have them
Go higher, out of reach
Hadn't noticed [ePVM] before
Having security is a great idea
Hope they accomplish what they're for
Overall a good idea, despite privacy concerns
People seeing cameras make the difference - deterrent
Why three?

ePVM with PIP
First time seeing them
For people with kids, it's a little creepy
Good and bad in different ways
Hopes it is a deterrent
Hopes they work, but are irritating
Makes you feel safe because there are all kinds of people/ prevents mugging and random violence
Probably should be everywhere
Signage, definitely helpful, mark as new
Take blinking light and sound off