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Aggravated Robbery Initiative CCTV Report





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Background

Between 2015 and 2017 there was a significant increase in the number of commercial aggravated robbery¹ victimisations in New Zealand. The number of victimisations increased from 599 in 2015, to 1039 in 2016 and 1170 in 2017.²

In response to the increase in commercial aggravated robbery occurrences, New Zealand Police analysed CCTV footage captured during commercial aggravated robbery occurrences at New Zealand businesses between 1 October 2017 and 31 March 2018. This study aimed to identify effective ways to prevent commercial aggravated robbery and to reduce the harm and loss caused by such offending.

The CCTV footage was reviewed to identify opportunities to prevent commercial aggravated robbery. This preventative lens contrasts with the investigative focus traditionally employed when reviewing CCTV footage.

The focus on prevention is consistent with New Zealand Police's Prevention First National Operating Model,³ which prioritises taking every opportunity to prevent harm and puts people at the centre of policing. It enables a smarter, technology-savvy and targeted response to crime patterns and supports a local focus on preventing revictimisation of people and locations that have been previously targeted, to ensure that community members can be safe and feel safe.

Victims suffer physically, psychologically and financially as a result of commercial aggravated robberies. Preventing the incidence of, and harm caused by, commercial aggravated robberies will contribute to making New Zealand the safest country.

This report provides an overview of the characteristics of aggravated robbery offending within the sample, the prevalence of prevention measures, and the observable impact of those prevention measures. Recommendations on prevention measures are made to help reduce victimisation

Crime science

Crime science is focused on reducing crime by understanding the immediate situation and how that contributes to the opportunity for a particular type of offending to occur. Where a particular situation enables criminal offending changing aspects of the situation leads to measurable, and often permanent, reductions in offending. This illustrates the importance of developing specific prevention measures that are targeted to a particular location or offence type, and that make offending more risky or less rewarding.⁴

Routine activity theory states that offending is a result of the combination of a motivated offender and suitable target coming together in the same location at the same time, and in the absence of a capable guardian. The lack of any one of these elements should prevent criminal offending. Effective prevention measures target one or more of these elements.⁵

Method

This study was conducted using multiple data sources. It utilised CCTV footage, Police database occurrence narratives, and documents from case files. This included robbery offence reports and formal written statements which provided information to support analysis of raw CCTV footage.

A total of 287 commercial aggravated robberies of small businesses from the period 1 October 2017 to 31 March 2018 were assessed for suitability to include in this study.

- ¹ As per s 235 of the Crimes Act 1961 a robbery is aggravated when it a) causes grievous bodily harm, or b) is committed by more than one person, or c) with a weapon.
- $^2\ https://www.police.govt.nz/about-us/statistics-and-publications/data-and-statistics/victimisations-police-stations$
- ³ New Zealand Police, Prevention First Āraia I Te Tuatahi: National Operating Model 2017.
- ⁴ Laycock, Gloria "Defining Crime Science" in Melissa J. Smith and Nick Tilley (Eds.) Crime Science: New Approaches to Preventing and Detecting Crime (Willan, 2005) pp. 3 24.
- ⁵ Cohen, Lawrence and Felson, Marcus "Social Change and Crime Rate Trends: A Routine Activity Theory Approach" American Sociological Review, vol. 44 (1979): 588-608.

An occurrence was included if it had occurred inside commercial premises and targeted some form of item held in that premises, and where an offender had used violence or threats of violence. A total of 254 separate occurrences were included in the study. This sample represents 88.5% of all occurrences that occurred during this time period.⁶

The CCTV footage from each occurrence in the sample was reviewed, where it was available. Each review focussed on the external environment, point of entry, point of exit and internal environment of the premises and aimed to identify points of actual and potential intervention.



Case studies were created for a small number of occurrences. These sought to highlight occurrences where existing prevention measures were particularly lacking, or where they were absent and their presence would likely have had an impact on preventing loss or harm. These case studies provide a useful reference point when assessing other occurrences and identifying opportunities for prevention.

The scope of this study was limited to robberies, assaults with intent to rob, and aggravated burglaries where the offender would have had a reasonable expectation that a victim was present, such as forcing entry to a petrol station where night pay is functioning. It did not consider burglary offences.

Discussion of the prevalence of prevention measures is hampered by the fact that this sample only includes premises that have been the target of aggravated robbery. It is entirely possible that these premises were targeted because they did not have sufficient prevention measures in place, and that other premises were not targeted because they had adequate prevention measures. Full assessment of this would require comparison with an equivalent sample of premises that were not targeted during the same period.

Every effort has been made to ensure that the figures in this report are precise and accurately reflect the commercial aggravated robbery environment. There may be some minor discrepancies in information drawn from the multiple sources used in this study, however, the figures allow us to make generalised recommendations on effective prevention measures.

Results

This section is divided into two main parts. The first part describes the characteristics of the occurrences, and identifies trends and patterns across them. The second part discusses each prevention measure, with case studies, to illustrate the success of those measures in preventing theft and harm to victims. Ideas presented in this section are suggestions only.



⁶ Some occurrences were excluded due to the difficulty in obtaining CCTV footage from these events

PART ONE

Characteristics, trends, and patterns

Geographic spread

The majority of occurrences (55.5% [141]) occurred within Tāmaki Makaurau (Waitematā, Auckland City and Counties Manukau districts).

There was a notable concentration of commercial aggravated robbery occurrences within Tāmaki Makaurau and neighbouring districts. Seventy five percent (192) of occurrences occurred within Tāmaki Makaurau and Waikato districts. Including the Bay of Plenty and Northland districts accounts for 84.3% (214) of all occurrences. In contrast, only 4.3% (11) of all occurrences occurred within the South Island.

Figure 1: Map of New Zealand showing number of aggravated robbery occurrences by Police district from 1 October 2017 to 31 March 2018.



Time on scene versus response time

Offenders were on scene for less than two minutes in 86.6% (220) of occurrences, and for less than three minutes in 93.7% (238) of occurrences. Median Police response time was 6 minutes and 22 seconds.

It is clear that a typical Police response is very unlikely to interrupt an aggravated robbery in progress. Innovation

including the implementation of prevention measures, is required to reduce the risk of harm during this critical time period.

Types of business

Dairies and superettes were targeted in 51.6% (148) of all occurrences, the most of any scene type.

The types of businesses contained within the sample were divided into seven groups with distinct characteristics, as shown in Table 1.

Table 1: Description of scene types and number of aggravated robbery occurrences at each from 1 October 2017 to 31 March 2018.

Business type	Characteristics	Number of occurrences within sample ⁷
Dairy/superette	Small businessesSell tobacco productsOften independent/owner-operated	126 (49.6%)
Petrol station	 Primarily sell petrol, but also tobacco products, food and everyday goods Extensive open hours, often 24/7 	34 (13.4%)
Bar/pub/tavern/hotel	 Sell alcohol for consumption on site Open hours often extend to early morning Often have gaming machines on site 	22 (8.6%)
Liquor store	Off licence sale of alcoholOften sell tobacco products	35 (13%)
Restaurant/café	▶ Sell food and often alcohol for consumption on site	6 (2.4%)
Fast food chain	 Local outlets of larger regional or national fast food chains Extensive open hours, often 24/7 	10 (3.9%)
Other	 Miscellaneous entertainment venues e.g. TAB Retail stores Personal loan stores Independent takeaway stores and markets 	21 (8.3%)

Premises typically associated with the sale of tobacco and/or alcohol were targeted in 85.4% of occurrences.8



 $^{^{\}rm 7}\,$ Due to rounding, the percentage figures do not total 100.

⁸ This includes dairies/superettes, liquor stores, petrol stations and bars/pubs/taverns/hotels.

High risk time periods

High risk time periods varied considerably between scene types, and were linked to their hours of operation. Occurrences at dairies were widespread during regular operating hours (6am – 9pm) but frequent high risk periods included 7 – 8am, 3 – 4pm and 7 – 8pm.

In contrast most robberies at petrol stations (71.4% [25]) and bars/pubs/taverns/hotels (77.3% [17]), and all robberies at fast food chain outlets (100% [10]), occurred overnight between 9pm and 6am. Liquor stores were most at risk between 6pm and 11pm (82.9% [29]), but particularly in the two-hour period between 8pm and 10pm (57.1% [20]).

Items targeted

Items were taken in 81.8% (208) of occurrences. Cash was the most commonly targeted item (70.1% [178]), followed by tobacco products (51.3% [130]).

The type of item targeted varied between scene types. Cash was the most commonly targeted item across all scene types. Tobacco was the most targeted item in occurrences at dairies and petrol stations.

Targeted commodities are ones that are CRAVED – concealable, removable, available, valuable, enjoyable and disposable. An item with these attributes is more likely to be targeted by an offender than one without. For example, tobacco has all of these attributes and due to its increasing unaffordability as a result of tax increases, and the emergence of a black market in which it can be readily on sold for profit, it could be considered particularly valuable and easily disposable.

CCTV footage showed that for these occurrences tobacco and cash were routinely left unsecured. Cigarette cabinets were left unlocked in 79.1% (91) of occurrences where tobacco was targeted. Often the till was not secured to the counter, and in 22.8% (36) of occurrences where cash was targeted offenders fled with the entire till or cash drawer. Tobacco and cash are high value commodities and, when unsecured, are easy for an offender to access and remove. This makes them a very desirable target as the perceived reward to an offender from this kind of offence likely outweighs the risks of being apprehended by Police.

Top Tip

Reduce opportunities for theft by locking cigarette cabinets, securing tills and considering the location of CRAVED items.

Use of weapons

A weapon was presented in 78.7% (200) of occurrences.

Table 2: Number of aggravated robbery occurrences within sample in which weapons were used between 1 October 2017 and 31 March 2018

Scene type	Number of occurrences involving a weapon		
Dairy/superette	94 (87.0%)		
Petrol station	30 (93.8%)		
Bar/pub/hotel/tavern	22 (100.0%)		
Liquor store	25 (80.6%)		
Restaurant/cafe	4 (80.0%)		
Fast food chain	8 (88.9%)		
Other	17 (100.0%)		

⁹ Clarke, Ronald V., "Hot Products: understanding, anticipating and reducing demand for stolen goods", Police Research Series Paper 112 (Home Office Policing and Reducing Crime Unit, 1999) p. vi.

In most occurrences involving a weapon (65.5% [131]) the weapon appeared to be presented to achieve victim compliance, but not used any further. In 18.5% (37) of occurrences a weapon was used to gain entry to the premises or to disable prevention measures, such as a locked cigarette cabinet, and victims were directly threatened or assaulted with a weapon in 17.5% (35) of occurrences.

Tools or bladed weapons such as knives were used in 75% (150) of occurrences involving a weapon. Firearms were carried in 23.2% (46) of occurrences. There was a particularly high rate of weapon use – especially firearms – in robberies targeting bars, pubs, hotels and taverns. These premises may be perceived as lucrative targets as they often keep large amounts of cash on site.

Victim safety and compliance

Victims were assaulted in 27.2% (69) of occurrences and injured in 20.9% (53). In 23.6% (60) of occurrences victims were non-compliant with an offender's demands.

Twenty four percent (26) of compliant victims were injured, while 36.9% (24) of non-compliant victims were injured.

Non-compliant behaviours included chasing the offender from the premises, grabbing the offender to prevent them leaving, passive refusal to comply with offender demands such as to hand over cash, and throwing items at the offender. While 41.5% (27) of these occurrences resulted in theft being prevented, the increased risk of assault and injury highlights that this should not be considered a viable crime prevention measure.

There is a clear disparity between rates of victim assault at premises with uncontrolled entry, such as dairies and liquor stores (28% [67]), and premises with controlled entry, such as petrol stations and fast food outlets using night pay (13.3% [2]). Delaying an offender's entry to a premise gives a victim time to get to a place of safety. Immediate entry gives less time for victims to separate themselves from offenders.

Top Tip

During a robbery comply with the offender's demands, but take note of their clothing and appearance if you can so that you can describe them to the police.

Victim coercion

In at least 26.4% (67) of occurrences, victims opened tills and or/safes in response to the offender threatening or using violence against them.

Victim coercion is an integral part of many robbery offences, and commonly facilitates the theft involved in this crime type. Victim coercion was particularly prevalent in bar robberies, where large amounts of cash were targeted. When cash was targeted from a safe, 81.3% (13) of the time the victim had been coerced into opening it. The lack of prevention measures and large amounts of cash at these premises mean that they are likely seen as lucrative potential targets by organised, often well-armed, offenders.

Top Tip

Victim safety must be the top priority.



¹⁰ Luckenbill, David F. "Generating compliance: The case of robbery." Urban Life 10, no. 1 (1981): 25-46.

Guardianship

There were no members of the public present in 83.1% (211) of occurrences.

Offenders often waited until a premises was empty of members of the public before entering; 92.1% (116) of occurrences at dairies, 77.1% (27) of occurrences at liquor stores and 100% (10) of occurrences at fast food outlets occurred when no members of the public were on site. Offenders may perceive that a premises lacks capable guardianship when members of the public are absent.

There was one staff member present in 52.8% (134) of occurrences. However, this may not be as much of a deterrent as the presence of members of the public. For example, there was more likely to be two staff members present at liquor stores during their highest risk time than at any other time of the day,¹¹ and there was more than one staff member present in 72.7% (16) of bar robberies.

Top Tip

Increase potential for guardianship by ensuring windows are clear of advertising, shelves are low enough that you can see over them, considering the location of the till and having good lighting.



¹¹ In the high risk (8 – 9pm) period, there were two staff present in 62.5% of occurrences, in comparison with two staff members being present during 45.2% of all liquor store occurrences.

PART TWO

Prevention measures: What works?

Prevention measures can reduce offender motivation and decrease the suitability of a target by making it riskier and more difficult to access a premises and the desired item.

Overall, there was a noticeable lack of robbery-specific prevention measures installed at premises included in this sample. This section provides a basic description of occurrences where a prevention measure was utilised by a business, alongside case studies to illustrate the possible impact of those prevention measures.

While this section considers each measure in isolation, it is important to note that prevention measures can be more effective when used in combination with one another. It is also important to note that the method used here does not test the effectiveness of the combination of these prevention measures in a commercial aggravated robbery context and the wider research literature should be consulted.

Fog security devices

Fog security devices obscure an offender's sight when in the device's vicinity, restricting their ability to locate and steal items and allowing staff to retreat to a safe place.

Fog security devices were successfully activated in seven occurrences, and activation was attempted in another two. When successful, fog security device activation had the universal effect of causing offenders to flee when the fog took effect, preventing further theft and enhancing victim safety.

Both unsuccessful attempted activations were the result of human error where the operator failed to hold down the activation button for the required two seconds, so the fog security device did not change the offender's behaviour. Simple measures such as activation buttons on pendants worn by staff and adequate training could likely ensure consistent activation of fog security devices.

Fog security devices were most effective when offender entry was delayed, such as by night pay in petrol stations, as there was time for the premises to fill with enough fog to limit the offender's access to the target item. At premises with uncontrolled entry offenders were able to obtain a substantial amount of a targeted item before the fog took full effect. However, importantly, it is possible that even a delayed activation of a fog security device may create enough of a distraction to allow a staff member to retreat to safety, reducing the risk of harm.



CASE STUDY

Fog security device activation with uncontrolled entry

In this incident a group of juvenile offenders targeted a petrol station in a high-traffic area that did not have night pay functioning, meaning they were able to enter the premises without delay. The staff member activated the fog security device once the offenders were in store. The offenders were able to steal several trays of cigarettes before the fog took full effect. The victim was unharmed as the activation of the fog security device allowed them time to retreat to a safe area.

This incident simulates a fog security device activation at a dairy or other premise with uncontrolled entry and illustrates the importance of delayed entry and staff vigilance in maximising the effectiveness of a fog security device.

Fog security devices at premises with uncontrolled entry may be most effective where some other kind of delay can be manufactured, to mimic the delay created when an offender has to force entry. This may be as simple as locking cigarette cabinets and cash drawers.

Panic alarms

Panic alarms are set off manually by a victim in distress. They are usually audible and may be monitored by an alarm company who can advise police in the case of an activation. In the occurrences considered in this sample (22), offenders most commonly responded to a panic alarm activation by hurriedly fleeing the scene. In over half of all panic alarm activations victim safety was enhanced and loss was prevented or minimised.¹²

Several premises have panic alarms linked to fog security devices, with both activated by a single button. This means a victim can efficiently utilise both of these prevention measures with one simple action.

CASE STUDY

A missed opportunity to deter an offender

In this incident at a dairy, for over a minute the offender paced in front of the counter wearing gloves and with his face covered looking obviously suspicious while the staff member looked on nervously. The offender eventually jumped over the counter where he stole cigarettes. Had the victim activated an audible panic alarm when it became clear the offender had dishonest intentions it is possible he would have fled without stealing anything. This is supported by another incident where decisive action on the part of the victim scared of an offender.

¹² This included three dairies where thefts were prevented as a result of using the panic alarm.

Security glass and bollards

Security glass and bollards prevent or delay forced entry to premises where the doors are closed to the public or controlled entry measures are in place.

Security glass and bollards are most beneficial at premises where entry is usually forced, such as petrol stations that utilise night pay. Primarily they enhance victim safety by

delaying offender entry, allowing staff to retreat to a safe place. However, they also have positive effect on theft prevention where the delay also allows staff members to activate other prevention measures such as a fog security device or panic alarm.

When encountering security glass, offenders commonly used tools or other objects to smash the glass and obtain entry to the premises. The capacity of security glass to withstand an attack varies greatly depending on its level of reinforcement. The most effective form of security glass is designed to withstand sustained attack for up to 20 minutes.

CASE STUDY

Security glass and bollards prevent entry

The effectiveness of security glass and bollards in combination is illustrated by two similar occurrences at petrol stations. In the first incident, the offenders attempted to force entry to the petrol station by smashing the main glass door in a sustained attack with tyre irons and a wheel jack. The reinforced glass did not break, and further access was inhibited by bollards in front of the main door. They were unsuccessful in gaining entry. In the second incident, four offenders similarly attempted to gain entry to a petrol station by kicking and smashing the door with a steering wheel lock. Again, they were unsuccessful in breaking the reinforced glass. However, the lack of bollards at this premises meant they were able to drive a vehicle into the door, knocking it off its frame and enabling entry. Although the delay created by the security glass had given the staff member time to get to a safe room, the offenders were still able to steal a large amount of tobacco from the unlocked cigarette cabinet.





Night pay

When night pay is utilised the main doors to a premises are locked and customers are prevented from entering the store. They are served through a small window.

Night pay is primarily utilised by 24 hour petrol stations and fast food outlets. The hours that night pay is utilised vary between companies and sites. Some companies have strict policies governing its use, whereas in others utilisation is based on staff discretion, level of foot traffic and location of the premises.

Night pay increases the effectiveness of other measures preventing access to a premises, such as security glass and bollards. If night pay is not being used, then these other measures may not have the same potential combined effect. Night pay has the universal effect of delaying entry but when combined with security glass and bollards entry may be prevented entirely.

Different fuel companies each have different rules governing the use of night pay functions, but largely they dictate that the main doors are unlocked between 5 and 6am. 11.8% (4) of petrol station aggravated robberies occurred during this period. Night pay was in place in two of these occurrences, but not in the other two. In the occurrences where night pay was being used the offenders did not gain entry to the store and nothing was taken. In contrast, in the two occurrences where the doors were unlocked tobacco and cash were stolen and a staff member was hit in the face with a rock in one occurrence. These two examples illustrate the potential preventative benefits of night pay, as well as the importance for utilising it for as long as possible during times of low quardianship.

Top Tip

Utilise night pay during periods of low guardianship.

CCTV

CCTV allows monitoring of an offender's movements via a series of cameras within a premises.

CCTV footage was available in 88.2% (224) of occurrences included in the sample, far exceeding the prevalence of any other measure.

CCTV in this sample appears to have little impact as a prevention measure. It is possible that the effectiveness of CCTV in preventing aggravated robbery offending could be enhanced by clear signage advertising the presence of a CCTV system.

Where CCTV footage was not obtained it was as a result of a premises not having CCTV installed or set up to record, having systems that did not allow for retrieval of footage could not be retrieved from, or victims who did not engage with police.

The quality and accessibility of CCTV footage varied greatly. Poor quality footage was typically associated with very basic or antiquated CCTV systems, likely used by small businesses with limited budgets, such as dairies. In some cases CCTV systems were not set up to record, making retrieval of the footage impossible.

Physical counter barriers

Barriers prevent an offender from gaining access to high value commodities stored behind the counter and allow physical separation between an offender and staff member.

Only 2.4% (6) of the premises included in the sample had physical counter barriers installed. These barriers varied considerably in style and construction and included flexible wire barriers (3), a glass enclosure around the staff area (1), a metal cage (1), and a wire mesh barrier with a large serving gap (1). Theft was prevented in two of the six occurrences.

In this study flexible wire barriers served to slow down a motivated offender, rather than prevent access entirely. In one occurrence an offender was able to reach through the wire and pull the entire till back through. In the other occurrences the barrier created enough of a delay that staff were able to activate the fog security device, further deterring the offenders and reducing loss.

Physical barriers offer a limited field of protection in comparison to reactive measures such as panic alarms and fog security devices and are only effective when the victim is behind the barrier. In situations where staff are stocking shelves or conducting other activities in the store the protection afforded by the barrier will be non-existent.

It should be further noted that some of these types of physical counter barriers may conflict with the intent of Crime Prevention Through Environmental Design (CPTED). CPTED is based on the philosophy that a well-designed environment can result in a decrease in both crime and also the public's fear of crime. However, these types of physical barriers could potentially contribute towards the public's fear of crime, thus reducing guardianship and also potentially leading to a reduction in business.¹³

CASE STUDY

Makeshift barriers

Several examples of makeshift barriers were seen within the sample. These come with their own risks. One dairy installed a barrier made of metal mesh above their counter but left a large space between the mesh and counter surface for serving customers. When this premises was targeted the offender was able to reach through the gap in the barrier and stab the victim in the eye.

One premises included in the sample was the target of two aggravated robberies, one month apart, in which the offenders jumped the counter and fled with a quantity of cigarettes. In response the business owner installed a metal counter barrier. Following this the store was targeted again, however on this occasion the offenders were unable to access the targeted item or coerce staff so left empty handed.

Controlled entry

Controlled entry is typically facilitated by a security door that is manually and/ or remotely opened by staff to allow customers to enter the premise.

A small number of premises in this sample – two petrol stations, one liquor store and a bar – had a controlled entry door. When these premises were targeted, the controlled entry points did little to prevent offenders gaining access. In one incident offenders hid out of sight and knocked until a staff member opened the door. In another offenders hid their weapons until inside the premise, and in a third they easily jumped over a half height door.

It is likely that a motivated offender could present themselves as a legitimate customer until they are inside a premises, which reduces the effectiveness of controlled entry as a prevention measure. However, a controlled entry point could also act as a controlled exit point, preventing an offender from fleeing the scene. This would only be effective in preventing harm to a victim if they were able to physically separate themselves from an offender.

The owner of one dairy included in the sample installed a metal cage with a magnetic door lock to control entry to the premises after being targeted in a robbery. The door is manually opened by a staff member at the counter as a customer approaches. The door locks automatically after closing, requiring the staff member to also unlock the door to allow the customer to leave. It is unknown whether it has prevented further robbery.

Safe rooms

A safe room is an area within a premises which can be secured against further intrusion and where staff can seek refuge.

The prevalence of safe rooms was not able to be adequately assessed in this study. However, it is likely that many premises will already have access to a space that is easily accessible, lockable, and able to withstand a reasonable degree of physical attack from a motivated offender, such as a back room or store cupboard. Safe rooms are vital in ensuring victim safety by blocking physical contact between offender and victim, preventing harm and victim coercion.



¹³ www.justice.govt.nz/assets/Documents/Publications/cpted-part-1.pdf

Combination of prevention measures

In 33 (12.9%) occurrences the targeted premises had two or more prevention measures in place.¹⁴ Loss was prevented or minimised in 22 (66.6%) of these occurrences, and physical harm to the victim prevented in 31 (94%).

Within the sample the success of combined prevention measures was highlighted in five occurrences at service stations where theft and physical harm were prevented entirely as a result of these measures. Each of the five scenes had at least three of the following measures in place: panic alarm, fog security device, high quality security glass, bollards, night pay, and safe room. While this sample is small in numbers it suggests that the combination of measures can achieve both victim safety and loss prevention. However, it is important to note that specific combinations of prevention measures may be more suited to some premises than others, and this has not been tested in this study.

Top Tip

Prevention measures work best in combination with other measures.

Miscellaneous: Ineffective prevention measures

The following are prevention measures that were seen in this sample, but which proved to be ineffective.

BLOCKING ENTRY WAYS

In some occurrences doors had been blocked by pushing large items in front of them in an attempt to prevent entry to the premises. This measure had very little impact on offender entry, as once an offender had gained access entry they were able to push the items aside with little effort. A blocked entry is likely to act as a visual deterrent only.

¹⁴ Excluding CCTV.

CASE STUDY

Combination of prevention measures

A newly built fast food outlet was targeted by groups of highly motivated offenders twice within the space of 11 days. In both instances, groups of young males arrived at the scene in stolen vehicles and attempted to force entry by smashing a window. A combination of active night pay, triple reinforced glass, panic alarms, a secure safe room and secured tills achieved the objectives of ensuring staff safety and minimising item loss. Entry was delayed by 42 seconds in the first incident and 92 seconds in the second, giving staff time to activate the panic alarm and retreated to the safe room. Secure tills (bolted down and locked) and physical separation between victims and offenders led the to highly motivated offenders leaving without stealing the targeted items on both occasions.



ROLLER DOORS

In several occurrences victims attempted to prevent offenders fleeing a premises by pulling down a roller door, and in one incident the same measure was used in an attempt to prevent offender entry. In all of these occurrences the roller door was not pulled down fast enough to achieve the victim's intentions. Roller doors are largely a burglary-specific prevention measure and have little effect in preventing aggravated robberies.

WINDOW AND DOOR GRILLS

Window and door grills were installed at several dairies. The grills tend to be made of either plastic or metal. They serve a similar purpose to reinforced glass, at a lower price. Grills primarily serve to prevent burglary offences by impairing offender access when the store is closed and their efficacy was not tested in this sample.

Recommendations

The occurrences included in this study represent a sample of commercial aggravated robbery offending throughout New Zealand over a six month period. By examining CCTV footage and supporting documents from each occurrence, a rich and detailed dataset was constructed. This highlighted national trends, patterns and characteristics of this type of offending. This in turn enabled the assessment of existing prevention measures, the identification of further prevention opportunities, and recommendations to be made.

Prioritising victim safety

Ensuring the safety of victims must take priority over preventing item loss. However, measures that enhance victim safety, such as fog security devices or a safe room, may contribute to loss minimisation as well. Ensuring physical separation between a victim and offender will reduce the likelihood of victim coercion, limiting the offender's access to their target.

All businesses should prioritise prevention through non-confrontational methods such as fog security devices and ensure that each premises has a safe area for staff to retreat to. Staff should be well practised in what to do during a an aggravated robbery to keep themselves safe.

Multiple prevention measures

At premises that had two or more prevention measures in place, victim safety was enhanced and loss minimised where these were used in combination with one another. Conversely, where these prevention measures were not used together, there was a greater chance of loss or harm. For example, at premises where a fog security device was activated but the till was unbolted or cigarette cabinet unlocked, offenders were generally able to access the targeted item. Measures that actively deter offenders such as fog security devices and panic alarms appear to work best alongside measures that delay an offender's access to the targeted item, such as night pay or locking cigarette cabinets.

All businesses should consider installing a range of complementary prevention measures to suit their premises.

Top Tip

Install a range of complementary prevention measures.

Cost-effective prevention measures¹⁵

In many of the occurrences included in this sample high-value commodities were left unsecured. Cigarette cabinets were routinely left unlocked and tills were often not bolted to the counter. Locking cabinets and bolting tills are simple low cost measures that will delay an offender accessing a targeted item, increasing the effectiveness of other prevention measures. It is also that these measures alone could prevent theft all together.

Similarly, changing the placement of advertising material on windows to ensure sightlines are not obscured (i.e. below waist level) is a simple prevention measure that can be taken by most premises. This ensures a clear line of sight between the inside and outside of a premises, allowing members of the public to see into the store thus increasing their potential to act as guardians.

All businesses should secure their till to the counter and ensure a clear line of sight between the inside and outside of the premises. All businesses selling tobacco should keep cigarette cabinets locked at all times

 $^{^{15}}$ http://www.police.govt.nz/about-us/publication/online-version/business-crime-prevention-advice-preventing-crime-through



Scene specific recommendations

All of the scene types included in this sample are common targets of aggravated robbery. However, some prevention measures may be better suited to specific scene types given that the characteristics of offending differed varied by scene type.

DAIRIES, SUPERETTES AND LIQUOR STORES

Dairies and superettes are usually small, owner-operated businesses with a limited budget for security and prevention measures. Similarly, while chain liquor stores are more common than dairies, many may still operate on limited budgets. They are typically targeted by offenders seeking tobacco and cash.

Given that these premises are primarily targeted close to their opening and closing times staff should maintain an increased awareness of people entering the store at these times. Where possible, consideration could be given to controlling access during high risk times.

Police encourage conversations with large companies that utilise advertising that covers shop windows. It is possible that these companies are not aware of the potential harm caused by covering windows in their entirety. It is likely that a compromise could enhance prevention objectives while still serving the advertising needs of the companies.

PETROL STATIONS

In most cases petrol stations already utilise a combination of prevention measures. However, some occurrences showed that at some sites not all of these measures are always being used, or that additional measures may increase protection even further.

The majority of occurrences at petrol stations occurred overnight, demonstrating the importance of night pay. Fuel companies and individual sites should emphasise consider the benefits of utilising night pay for as long as possible, ideally until 0600hrs.

Petrol stations are also particularly susceptible to ram raids due to the nature of the premises and the ease of vehicle access. Installation of security glass and bollards, in addition to night pay, should be considered. As most sites already have security glass, they could be encouraged to install bollards as a simple and cost effective measure to prevent offenders gaining entry in this way.

FAST FOOD CHAIN OUTLETS

Similar to petrol stations, most fast food outlets already employ a range of prevention measures. In all cases offending at these sites occurred overnight and targeted cash, again emphasising the importance of night pay.

BARS, PUBS, HOTELS AND TAVERNS

These premises are seen as lucrative targets due to the amount of cash kept on site. However, few premises of this type had existing prevention measures in place.

Offending at these sites was almost always the result of victim coercion with staff being forced to open a till or safe by well-armed and highly motivated offenders. It is important to have an area where staff can gain physical separation from offenders, and to limit the amount of cash kept on site.

Table 3: Suggested prevention measures for each scene type.

Business type	Dairies & superettes	Petrol stations	Bars, pubs, hotels & taverns	Liquor stores	Fast food outlets
Lock cigarette cabinets	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
Secure till to counter	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Reduce advertising on windows	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Panic alarm	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Fog security device	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Safe room	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night pay		\bigcirc			\bigcirc
Security glass		\bigcirc			\bigcirc
Bollards		\bigcirc			
Limit cash kept on premises	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

As noted earlier in this report, the combination of prevention measures shown in the table above has not been tested in this study, due to the small sample size. When selecting prevention measures, businesses should consider the specific characteristics of their premises to determine which, and how many, measures are appropriate to implement or install.



