Price discrimination in australias leading supermarkets economics essay

Abstract.

In this Essay I will explore Two of Australia's major supermarkets; Woolworths and Coles and to find out if there any connections between the two supermarkets that would lead to an oligopolistic strategy or competition between the two. If any Oligopolistic behaviour is identified, it is possible that the Major Supermarkets are charging different prices around Australia at certain consumer groups. So if this behaviour is occurring; I have conducted surveys and investigations of prices on chosen products in different Woolworths and Coles Supermarkets around Australia to see if there is any price discrimination due to the location of the Supermarkets and depending in which city limit they are operating in. These Supermarkets operate in three different limits which are: Urban, suburbs and Rural, depending on the city limit and consumer profile, the investigation should show prices are different in each limit. Thus the Supermarkets are Price discriminating.

In conclusion what limitations faced in the gathering the evidence for the essay to back up the question and exploring whether the title is supported by the evidence in proving if the Two Major Supermarkets in Australia are price discriminating. Also exploring a possible new area for research that can be conducted in order to help support the argument of the title and help identify key characteristics of dominating firm(s) in a particular market. .

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Introduction.

The food and grocery industry provides the Australian economy with a range of food and grocery products such as, fresh produce, dairy products, flour and cereal product, bakery products, confectionary etc. The industry produces a $50 billion turnover per annum; making it Australia’s largest manufacturing sector. Supermarkets are the main tool for this industry to allow their consumers access the vast range of products available on the markets. Major Supermarket chains are drastically increasing their range of services far beyond customary food distribution by adding food services, such as deli, bakery departments and eateries that capitalizes on the growth of food away from home as well as nonfood services such as pharmacies and banks that combine one-stop shopping convenience and time-saving features. The latter is also a strategic response to increasing competition from a group of merchandisers and big-box retailers that are branching out into the grocery business. Supermarket service levels can affect demand, costs, market power and, therefore, prices[1]. Therefore there are some opportunities for the food trade to provide competition among firms to enter the industry. (Supermarket pricing policy, Lopez).

In economic terms, it has been established that Australian supermarkets can be considered as an oligopoly. This is where a small number of firms control that market, however much like a monopoly where one company controls the market and in an oligopoly there are at least two main companies that control the market. In the Australian Food industry, the market leaders are without a doubt Cole’s group and Woolworth ltd. When there are, only a few sellers competing with each other in the Market place the actions of each one will have a greater impact on the profits of the others. There is no single model of oligopoly because there is no unique solution to the problem of strategic interaction; however, game theory more commonly known as prisoner’s dilemma can be used to capture the various outcomes of the supermarket pricing policy. The prisoner’s dilemma is a fundamental problem in game theory that demonstrates why two people might not cooperate even if it is in both their best interests to do so. It was originally framed by Merrill Flood and Melvin Dresher.[2]

Player 1

Don’t decrease Price

The payers are the firms: Cole’s group and Woolworths.

The moves are the actions the two firms can take: they can either decrease the price of their products or don’t decrease.

The ‘ payoffs’ are the profits that each firm will earn.

Decrease price

$15

$20

Don’t decrease price

$15

$10

$10

$12

Decrease price

$20

$12

The equilibrium outcome of the game is that both companies will decrease their prices even though both would be better off if they keep their prices as they are. Such an outcome is unstable since each firm would have an incentive to advertise if its competitor did not. The Outcome that is most likely is called Nash equilibrium or the outcome at which neither firm has anything to gain by changing only its own strategy unilaterally.

Applying this theory, would indicated any possible evidence against the Supermarkets if either one were price discriminating against consumers in a given area.

This paper will investigate ' to what extent is the price of products in Australian supermarkets the determining factor in consumer's choice to shop at a particular supermarket, and how can this knowledge be used to increase consumer numbers and revenue.

Recommendations will also be suggested after analyzing such information. For the purpose of this investigation, this paper will take an in depth look at local supermarkets in different communities with varying environmental factors.

Woolworth's as A Company

Woolworths is an expanding company that has thousands of stores nation-wide, it is the second largest private employer in Australia. It has effectively removed the intermediary in the supply of products to its stores. It grows and produces its products and goods giving Woolworths complete economies of scale. Economies of scale are the cost advantages that a business obtains due to expansion. They are factors that cause a producer's average cost per unit to fall as scale is increased. Economies of scale are a long run concept and refer to reductions in unit cost as the size of a facility, or scale, increases.

I have collected a series of data of certain products inside the store Woolworths from three major cities in Australia. Selecting nine products randomly, noting down their prices and observing each product in three Woolworth's supermarkets in the area of that city. My hypothesis is Woolworth's prices should consistently stay the same throughout all retail stores because of competition rivalry Cole's and its advertising say it has the lowest prices every day.

I also conducted a Survey outside of the Woolworths Stores to consumers who were passing by and entering the store in each location, I was collecting my results for; the reason for this was to get an idea, why the consumers were shopping at this Supermarket. To get an Idea of what the distribution of Income was between the different areas. This was also to see if Income distribution had any effect on price discrimination.

I firstly collected my results in Sydney, I chose three Woolworths locations; Kellyville, which is a very high-suburbanized area, Surrey Hills, is located near the heart of Sydney, which is a very urbanized city area, and Penrith near the rural area, which is considered a lower income area.

Kellyville is generally considered to consist of mainly middle class income families, who can also be characterised as either upper, mid or lower middle class income earners according to the survey results. Surrey hills is the inner city is considered to be a higher income area with 42% of households earning AU$2000 or more a week. With an increase of price within supermarkets the number of consumers still willing to shop at these supermarkets does decrease but the percentage decrease is a lot lower than the hills district. Penrith the western suburbs are considered a lower income earning area with an average weekly income of around AU$1, 087. However while this is the same for all three locations the difference is the percentage change in the number of consumers willing to keep shopping at these supermarkets decreases by a higher rate when the price is increased slightly.

To justify this, a simple supply and demand diagram can show the effect if the supermarkets were reducing their prices.

For reasons why the supermarket prices will drop; is because on an increase of supply which leads to an outwards shift lowering the price caused by the Lower costs of production meaning that Woolworths can supply more at each price. Cost savings, can then be passed through the supply chain to wholesalers and retailers and may result in lower market prices for consumers.

On the other hand, if the costs of production increases, for example a rise in the price of raw materials or if a company is having to pay higher wages to its workers, then businesses are unable to supply as much at the same price and thus this will cause an inward shift on the supply curve.

Changes in production of technology and firms increasing their capital can change quickly and in other industries where technological change is swift, we will see greater increases in supply and lower prices for the consumer. The impact this has upon FMCG (Fast Moving Consumer Goods) which are the products that are sold quickly at relatively low cost. Is that they are produced fast and more efficiently causing an increase in supply of the FMCG's.

This Diagram, supply has an outward shift S1 moves to S2, Price drop

3From P1 to P2 this cause an increase in demand Q1 to Q2, reasons for this shift are as listed.

In addition, the number of producers in the market and their aims in an industry will affect the market supply. So when new businesses enter the market, supply increases causing downward movement on price. Coles is one of the other major supermarkets in Australia, which is competing with Woolworths for price control.

Where ever there is a Woolworths there is a Coles; in all the areas where the results were gathered, either right next door or only across the street, even down the road. Right next to every Woolworths was a Cole's supermarket. Positions of firms are not placed or built randomly; they built strategically to get the most customers for maximum profit. This is monopolistic behavior, the market situation in which there may be many independent buyers and many independent sellers but competition is imperfect because of product differentiation, geographical fragmentation of the market, or some similar condition.[4]

These two firms are competing for customers; supermarkets sell similar or the same products in each store, depending on the consumer their preferences would determine on the quality and value of the good being sold. Supermarkets together such as Cole's and Woolworths offer specials or promotions on goods they are selling; for example Holiday occasions such as Christmas or Easter. Also store loyalty cards are offered to consumers to encourage spending to gain cash points, so consumers can earn these points to gain special rewards or gifts if the appropriate points are gathered. But Cole's prices on products are much more expensive than what Woolworths has to offer, so why do consumers shop there?

Cole's as A Company

Coles store prices compared with Woolworths store prices that products are of similar or same group of produce are more expensive. So why do people shop there? Probably the reason why some consumers shop at Cole's rather than Woolworths could be due to the fact of simple Advertising. Going back to Australia Cole's advertising was more thoroughly expressed through public medians. Offering low prices and specials on most products they were selling. This influence of advertising was aimed at the lower class society and middle class because of individual's income earnings are not as high as most, they would be inclined to shop at a place that offers lower prices. But as the individual shops at Cole's supermarket they are actually paying more rather than less.

Cole’s can charge these high prices because of the price discrimination; it can charge different prices for different groups, which are the lower and middle class societies.

The data analysis recorded from the product prices research graphs in Data Analysis conducted through the Cole’s stores and what it showed was that prices were consistently higher throughout each Coles store over the three identified states and even though the stores where only a suburb away from each other, prices of the recorded products were still high even though competition was present in some of the areas such as Kellyville, Kelvin Grove, Spring hill and Victoria Park.

In the other areas that didn’t have competition present were able to majorly ‘ cheat out’ the customers due to price discrimination, hence there was no other store in the nearby suburb or local area to shop other than Cole’s; so Cole’s supermarket could charge whatever price they wanted for the products they were selling.

Comparing the results with Woolworths and Cole’s, Coles had a high price charge on similar products to Woolworths. Even in area of competition it seems that even with Woolworths lower prices on similar goods; had no effect on Coles products.

Data Analysis between the Two Supermarkets.

Through the data analysis, it clearly shows that product prices of the two supermarkets in the different regions have been altering their store prices, to effectively discriminate consumers. Looking at the graphs for Woolworths in appendices figures 1 to3.

Figure 1 is showing Woolworth stores based through Sydney in there distinguished city limit. Surrey hills being the more expensive area (closer towards the city rather than suburban areas) where higher income earners live, on figure one we can clearly see on the chart that prices compared to Kellyville (middle class earners) and Penrith (lower class earners) that they are being charged high prices for the same products in Surrey hills. With this information, it clearly shows that Woolworths is price discriminating due to the level of income earners in a specific area. Linking with the title; not only is Woolworth's price discriminating by the level of incomes of the consumers but with the geographical location of the specific groups of consumers. Surrey hills is in the area of the city, where prices of goods and services are relatively more expensive, therefore Woolworths taking advantage of its economic capabilities to charge higher prices in this particular area, regardless of competition. Throughout the other states of Australia such as Perth and Brisbane, the same situation is occurring. Under the charts are the tables showing the prices of the goods that were noted. Evidently it shows the difference in prices in the areas of the data gathered, the significance of this was again to raise the evidence, showing by how much Woolworths was price discriminating on the products.

Coles is in the same situation as Woolworths, as the evidence shows that Coles is also price discriminating due to the consumer incomes and geographical location of stores. But for Coles the prices are higher and closely similar as for Woolworths there was a distinguishable price difference. Looking at figures 5 to 6 in appendices (Coles product prices) there is no significant change in the prices they are discriminating on.

Comparing the data’s of Woolworths and Coles, we see a massive price difference of the two stores. Calculating the average prices of all three states, it was discovered on Figures 7 and 8 in appendices that Woolworths had a high difference in their store prices than Coles did, but Woolworth’s prices were lower than that of Cole’s store prices. Reason for this could be that since consumers have other choices of shopping at other supermarkets preferably small ones. Woolworths has lower prices to keep out smaller competitors whom try to enter the market but cannot because matching the lower prices of Woolworths means they are paying higher production costs for little profit, they cannot sustain this so they generate loss rather than gain profit.

The reason for the high prices for Coles could be due to the fact, that the area the store is located lacks other supermarket competition so therefore consumers are forced to shop at Coles if in that district.

This type of Price discriminating of what Woolworths and Coles are using is referred to as third degree price discrimination. This form of price discrimination is the most frequently used among firms with economical power in the market. The key for third degree price discrimination is associated directly to the consumer’s willingness and ability to pay for the good or service. It means that the prices that are charged by the firm may bear little or no relation to the cost of production.

This graph is an example of third price discriminating

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Assume that a firm has divided a market by time into a peak market with inelastic demand, and an off-peak market with elastic demand. The demand and marginal revenue curves for the peak market and off peak markets are labeled A and B correspondingly. This is show in the diagram on the previous page. Presuming a constant marginal cost for supplying to each group of consumers, the company aims to charge a profit maximising price to each group. In the peak market the firm will produce where MRa = MC and charge price Pa, and in the off-peak market the firm will produce where MRb = MC and charge price Pb. Consumers with an inelastic demand for the product will pay a higher price (Pa) than those with an elastic demand who will be charged Pb.[6]

With this identification of the two supermarkets, Woolworths and Cole's price discriminating. This raises an interesting fact that, are the two major supermarkets in Australia actually colluding with each other in the same contestable market??

Woolworths and Coles, Duopoly??

Investigations have come too light, Australian government is probing; if the two major supermarkets are colluding together, to keep prices high in the supermarket industry.

Here is an extract from an Australian new website:

According to new OECD price data, prices for food in Australia have increased by 41. 2 percent since the beginning of 2000[7]. Supermarket giants Woolworths and Coles are being hold responsible for Australians paying the fastest growing prices for groceries in the developed world. To reduce the rapid increase in prices there should have a greater competition in the supermarket industry where other competitors can reduce the duopolies prices, but if Woolworths and Coles are together working on keeping prices high, then they are introducing or enforcing barriers to entry into the market.

In most countries firms that are colluding together is highly illegal. With two duopolies present, they can force barriers to entry into a particular market e. g. Woolworths and Coles, preventing any other competition from entering. Meaning the prices are higher in the duopoly market. The reason they put up these barriers is because if competition were to enter the market, the average cost of goods and services provided by the Monopoly or duopoly firm(s) will drop, to compete with each other for consumers, thus price discrimination isn’t a factor when this occurs. Examples for Barriers to Entry could be Advertising; Cole’s in Australia has a massive advertising campaign which dominates all other supermarkets even Woolworths. With this advantage Cole’s area able to expand and reach consumers throughout Australia convincing them to shop at Cole’s.

Another example of Barriers to Entry is Vertical Integration which is The process in which several steps in the production and/or distribution of a product or service are controlled by a single company or entity, in order to increase that company’s or entity’s power in the marketplace[8]. Which Woolworths has; Woolworths doesn’t just sell or produce its own products, it also has tertiary level stores, for example Woolworths has its own Liquor stores and Petrol stations.[9]With this advantage Woolworths can prevent multiple competitors from different markets from entering, thus prices for the goods and services will remain high. There are many other forms of Barriers to Entry e. g. control of resources: If one firm has control of a particular resource that is required for a certain industry, then other firms cannot compete in the same industry. Cost advantages independent of scale: Patented technology, know-how, favorable access to raw materials, favorable geographic locations, and learning curve cost advantages.

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The Price Inelastic of demand graph on the left shows the prices of goods or services changing. As you can see if the current price was to decrease by a lot from P1 to P3, the decrease would be loss in profit margins and the quantity would only increase by a little bit, shown by the shaded blue area. If the prices were to increase from P1 to P2 then there would be a massive gain in profits but little drop in quantity Q1 to Q2 shown by the shaded green area.

Short run effects of this, product efficiency is at a high in the industry of producing food, the PPF diagram is showing the product efficiency between food and computers, Woolworths and Coles will be producing at point A for maximum food production because they specialise in this area not in computers.

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The long run effect on this will cost the consumers a lot; with the duopoly in effect market prices aren't able to reduce thus causing price inelastic of demand on certain goods and services because consumers have no other choice to shop at cheaper retailers because there is no competition in the market. Using a Price inelastic of demand graph as a model to show what could happen if the Duopolies Woolworths and/or Coles were to increase or decrease prices in their controlled market

So overall it is more effective for the Supermarkets to increase their prices to gain the large amount of profit possible.

Conclusion

With the investigation of the title to have proven correct that Supermarkets in Australia are price discriminating due to geographical location. With further in-depth investigation it has also come about that the geographical location of the store is tied with the consumer's income level in the general area of the store location. The consumer's income which contributes to the determination of the prices of the goods and services that the consumer can afford and what the store provides.

I would like to add that Woolworths and Coles may prove to be perceptively competitors in the eyes of consumers but following information that followed after the initial research of price discrimination of consumers, that the possible fact that Woolworths and Coles maybe be a Duopoly, colluding together of store prices in the market.

There is some evidence that shows that Woolworths and Coles are a duopoly but this is uncertain. With the lack of evidence to support this, my personal reflection is that Woolworths and Coles are a duopoly.

With the lack of more sustainable primary research evidence, such as interviewing store managers to comment on the situation, which was one of the limitations I faced because it prevented a more detailed explanation of if the Supermarkets were price discriminating consumers which would help support the claim. So the main source of evidence was the investigation of the product prices of certain goods.

This essay could expand more into the area of Coles and Woolworths being a duopoly. So it suggests a new area of investigating and research for future essays and it would be interesting to find out if they were, in order to strongly support that Woolworths and Coles were prices discriminating.