FACTORS AFFECTING PRICES OF SINGLES IN CARDFIGHT !! VANGUARD

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DECLARATION

I hereby declare that:

(1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

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LIST OF ABBREVIATIONS AND LINKS

TCG: Trading Card Game

MTG: Magic the Gathering

PKMN TCG: Pokémon Trading Card Game

For information on rules and gameplay of Cardfight!! Vanguard, as well as product information, please visit the official site for the game as below:

http://cf-vanguard.com/en/

http://cf-vanguard.com/ (Japanese Official site)

ABSTRACT

The study in Trading Card Game (TCG) has been a relatively rare subject as it is a niche hobby. The game, involving strategizing and customizing of units, allows a player to fight with others who uses a different set of units through a turn based interaction mechanic. Examples of such game includes Magic: The Gathering, Pokémon etc. In spite of the gameplay, there is also a tradable aspect in the game, which result in the development of player based market, commonly known as the secondary market. This is where players can trade, buy or sell cards within their collection for purposes. However, the issue of a fair pricing on the card persist in the market, which due to the lack of a categorization. Numerous studies have attempted to understand the rational of pricing but there is no clear cut answer as to the factors affecting the price. This study, therefore, attempts to provide answer to the question of what are the factors that affect the prices of singles in the secondary market. This study analyzed the perception of players of the game so as to develop a connection between factors and prices, thereby allowing players to understand what drives the price of singles in the market. The study attempted rationalize factors such as illustration, hype on future support, effectiveness in gameplay, rarity of a card and community influence as factors that affect the prices of singles. The study indicated that all factors except hype on future support are influential in affecting the prices of singles.

CHAPTER 1

INTRODUCTION

Trading Card Game (TCG) or otherwise known as Collectible Card Games is a hobby to which features the characteristics of a collectible item; as well as complex game play mechanisms (Brian-Marshall, Van Druenen, & Wang, 2010). This is so by having cards that are having difference in skills and customization on the gameplay. Players of TCG will have to gather a set of cards (known as a deck) in order to play with other players and in it there are also additional cards from expansions that can be used together in play, and this diversity of card selection and strategy formulation is what makes this game interesting; as not only it encourages creativity but it also fosters a social interaction between people.

1.1 A brief history of TCG

Though indirect, the trend of collectible cards (which linked to the creation of TCG) can be traced back to the Baseball cards in 1904 (Brian-Marshall et.al. 2010) as a result of competition to gain market share. Modern TCGs did not take foot until 1993, to which Dr. Richard Garfield, a mathematician created a prototype of the current Magic: the Gathering (MTG) as a means to make use of downtime during game conventions. The idea was taken in by storm, as it was well received. Due to this, expansions begin

to follow, but with one added feature- all the cards are having the same identical back; meaning that cards can be mixed together irrespective of expansions to allow for customization. This became a trend for TCGs to follow as it would mean that players can make use of all the available cards irrespective of expansions (unless the card is being rotated off the tournament or is banned from official tournaments).

Two years later, a splurge of TCG begin to follow in the steps of MTG, but few had succeed to capture the hearts of the general audience. That was the case; until 1999 saw the introduction of the Pokémon TCG (PKMN TCG) that was made available by Wizards of the Coast (WotC) - the same company that created MTG. They had collaborated with Nintendo to produce the card game for the same series as the video game. In contrast to the specialized hobby market, PKMN TCG targeted a whole range of audiences, ranging from child to adults as the Pokémon series is well known. This has resulted in the widespread knowledge on TCG and it gained a status as a hobby as well as being a game. During the same year, another prominent developer- Konami, saw the opportunity in the industry as well, created the series Yu-Gi-Oh (YGO) that is based on the anime that it was created in, as well as comics that are related to it. Given this trend, it seems that TCG are a viable market in spite of the lack of attention paid to it. And this successful story held from having the audience who are in tuned with shows.

This was the trend taken in by the whole industry, as it is noted that recent TCGs are based on anime of the same name. Because of this, it is noted that most of the newcomers in the TCG comes predominately from Japan in recent years. Newcomers such as Bushiroad, Takara Tomy capitalized on anime in order to launch their products. As did WotC when they introduced the Harry Potter TCG as well as Star Wars TCG to capitalize on the audience (Note: both Star Wars TCG, Harry Potter TCG are no longer in market as of current date, even though they are still players).

1.2 Recent Trends and developments

As mentioned above, the current trend of TCG is mostly from Japan, who had taken in their share of TCG with anime. Below is a list of TCG developers from Japan that has products due with anime

Company	Products related
Takara Tomy	Wixoss
Cardass	Gundam Cross Wars, Gundam Duel Portal, Sunrise Crusade
Bushiroad	Weiss Scwharz, Cardfight!! Vanguard, Futurecard Buddy Fight, Luck and Logic
Broccoli	Z/X (Zillion of Enemies X)
The Pokémon Company	Pokemon TCG (taken back since 2003 from WotC)
Konami	Yu-Gi-Oh
Bandai	Battle Spirit, Digimon card game (not available in market)

Table a: List of TCG producers from Japan.

Adapted from: Theddy (2015); Brian Marshall, et. al. (2010)

Indeed, it is noted that Japanese TCG is getting a foothold in the market with the relevance of anime and it is noted that such trends are going strong, as indicated in the market value in Japan.
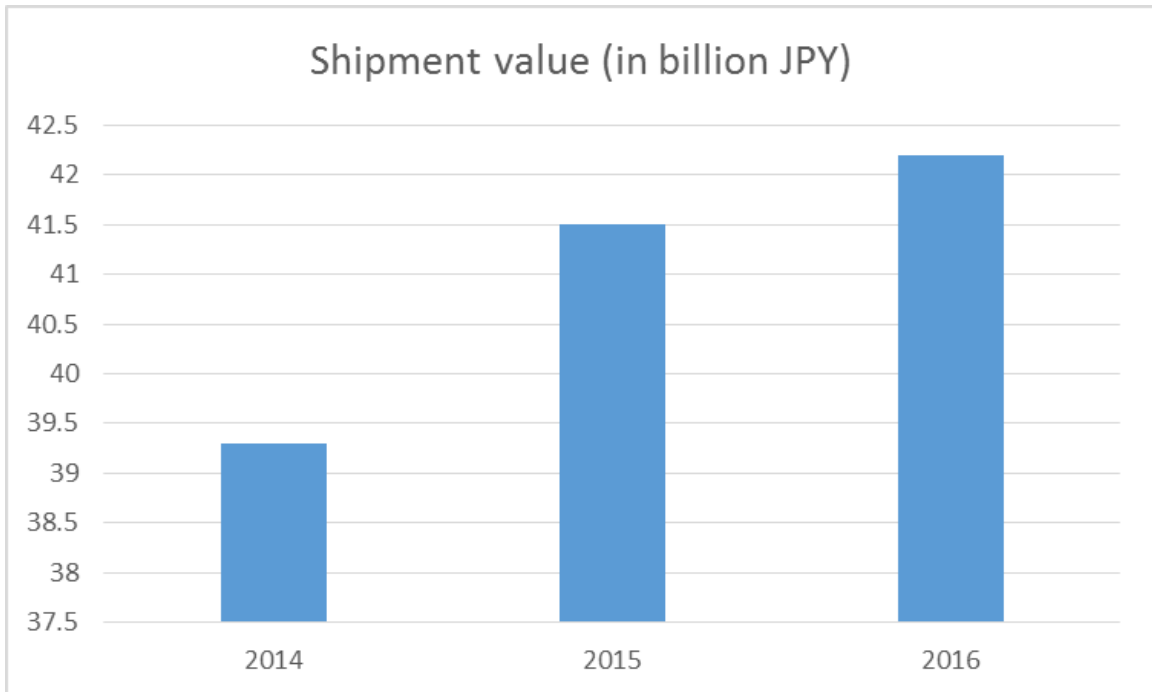
Graph a: Shipment value of TCG market in Japan for years 2014-2016 (in billion JPY)

Adapted from: https://www.statista.com/statistics/695827/japan-trading-card-games-market-size/

Perhaps, the more surprising development in the TCG industry is the integration to the digital world. This means that in addition to the playability offered in the physical card form, developers have created extra value to them by giving out an online experience. This is seen in PKMN TCG as well as MTG, which houses an online edition as well. This is the same with Gundam Cross Wars (which featured the physical play as well as online gaming). This allows for more value in addition to the playability and collectability that previous card has. Additionally, several card game developer have gotten into the digital platform, as a means to ensure that they get a worldwide audience as well. The same technological advancement also leads to the development of the prototype augumented reality (AR) tables that can display the image of the cards being played as a hologram as well as allowing for better game play experience. Such efforts

are noted Nguyen, Yeap, and Hooper's (2017) prototype experiment where they use AR markers within a card to further develop an image on the field as to allow for imposition of the character being played and foster further interaction within the game. Thus, it can be further stressed that TCGs and it Digital counterpart are here to stay as a hobby.

Though referred sometimes as collectible card game; Official Card Game; Customizable Card Game by some; they are all refer to as TCG, and this study will refer all of those as TCG. The basic components of a TCG as noted by Brian-Marshall et.al (2010) is one whereby:

1. There are a set of rules that dictates the flow of game play. This will usually be stated in the rulebook and has both basic and sometimes comprehensive ruling attached together to allow for players and beginners to get a better grasp of the game. Additionally, sometimes game developers may have a ruling page setup in their sites as to provide clarification as well as updates to the newer mechanics that are introduced.

2. There is a need for a set of cards in order to play. This is what is known as a deck, and depending on the game, there will be an additional deck that comes into play (e.g: the G-Zone in Cardfight!! Vanguard; Side deck in MTG and the Extra Deck in YGO just to name a few). The formation of a deck can be rather flexible as long as it does not contradict to the general gaming rules or ban list in tournaments. This is where the cards or characters inserted into a deck comes into play as to suit the gameplay of the player.

3. The narrative of the game. This refers to the setting of the gameplay, which adds story to the gameplay. This, for example is the lore and stories crafted for the story of the gameplay and this affects the design and gameplay strategy of a game.

4. Supplementary products that maximizes experience. In addition to gameplay, players usually will need items such as life counters, dice, and sleeves and play mats to further enhance gameplay or to protect their belongings.

5. Community generated resources. This refers to the amount of content generated from the community of players themselves and it includes items such as strategy guide, articles, price guides and related items. It is noted that there are magazines related to card games being generated in addition to the online resources due to the advancement of technology. An example of this is magazines like Scrye, which is a good source for players prior to its closedown in 2009

1.3 Background of study

Given that there is a pricing issues that exist within the current secondary market, the study aims to identify and highlight what are the factors that will affect the prices of single cards in the game. This is referring to the case of Vanguard and would have relevance to the game, but it is hoped that the study is able to point out factors that is relevant to all TCGs as well. Specifically, this study would also try and take note of both academic research as well as community thoughts (which is important as TCGs are dependent on the community that plays it, thus, some practical thoughts are useful to evaluate as well). Thus, the evaluation is expected to generate value for studies of similar field, considering the lack of study in this.

1.4 The case of Cardfight!! Vanguard

A product of Bushiroad Inc., Cardfight!! Vanguard (Vanguard) is created in 2011 in Japan and saw release in the English edition in the same year.   It is a game whereby players imagine themselves as spirits dueling in the fictional Planet Cray.

Both players will battle using units that are in a deck to help them to fight. The characters (also known as units) are called from hand to help the player to attack, defend or perform additional tasks. In addition to the units called to help out, players will have a main unit that represents themselves known as the Vanguard; and the gameplay revolves around strengthening your vanguard, calling units and attack the opponent. A game is won if a player managed to deal 6 damage to the opponent's Vanguard or the opponent decks out, though there are alternative wining methods (please refer to Omega Glendios, Eigorg for more details).

As of current, Vanguard is having a variety of expansions as well as pre-constructed decks (which refer to as trial decks) for players to choose from. Additionally, there is also several specific sets that are focused with a theme (ie: the Character booster and the Clan booster) that caters to specific audiences. Gameplay experience is also enhanced recently with the introduction of Legend Decks- a set of deck that is fully built with all the enhancements as to allow for better beginning experience as well as upgrading of the standard Trial decks. (for a list of products, please refer to the appendix).

Additionally, Bushiroad also offers a variety of supplementary products that includes sleeves, playmat as well as counters to represent power levels or status conditions. There is also a publication by Bushiroad to provide information, tips and products as well (Monthly Bushiroad). The official website (for both English and Japanese editions) is also a source of information on card releases, rulings and product announcements. This is to allow for players to have information and check out rulings and mechanics. Articles are also posted up in the website (by game developers) as to explain and provide in depth concept of creation. Decklists for relevant sets are provided whenever there is a new release; thus allow people to create or modify their current decks with the recent support. Information is also provided in the form of anime as well, in that new cards will often be showcased as to allow for players to see what they can expect further on.

In terms of tournament support, Vanguard has been adequately supported as there are both large and small scaled tournament worldwide. Tournament participation entails

for promotional cards for the players and is a good way for the game developers to see the current trend. Additionally, periodical reviews of the ban list is done and adjustments were made to balance out the unhealthy game environment.

1.5 Cardfight!! Vanguard in the secondary market

As suggested by Brian-Marshall et.al. (2010), since there is the essence of collectability in TCGs, there is an indication that it will be traded amongst players. This is what is known as a secondary market. In the case of Vanguard, the secondary market refers to the market which exist from trading (includes buying and selling), be it from local or international market. The reason for this is that players can get their hands on cards which is important for their builds at a lower risk. Since opening booster packs (packs that contain cards from a certain expansion) may not be viable and sometimes costly, trading in the secondary market is a viable option for players in order for them to obtain cards for their respective purpose. Currently, there are two types of people that make up the secondary market; which are: the players themselves as well as card shops who are retailing singles in the market. Thus, there is an importance in the secondary market as it grows the game. Thus, online market sites such as EBay, Amazon are viable mediums to which people can transact through. Additionally, there are also specialty sites that allow purchasing or selling cards online. Sites such as TCGplayer.com provides an avenue for players to look for the appropriate card with minimal effort, thereby allowing the community to grow.

1.6 Secondary market overview

Although there hasn't been a definition, the secondary market refers to the market in which players or other relevant parties deal in the single cards (Phoenix, 2015). It has also been called as a community market, for its namesake in getting the community to run the market. Typical participants of the secondary market may include the players,

collectors, and retail shops. Motive of incumbents in the secondary market may vary, as some are aiming at profits from sales of cards. The similarity bears resemblance to a normal market, as the transactions reflect the conditions of a market.

So, whenever there is a new set being released, there is a possible trend that certain cards are highly demanded and even run out of stock. The same issue also arise whenever a rumor that a certain card is getting possible future support. Take for example, the card Velvet Voice, Raindear. A common card that has been around since 2012. It is with minimal reprints from FC2014 and Bermuda Summer set, and the original version has been relatively priced down. But all these changed when the new support came out in Blessing of Divas, a new set due to release in August 2016 for English edition. The price trend as per noted (Velvet Voice, Raindear, 2016) is that a noticeable spike on price. Furthermore, there are other sites which have already sold out copies of the card. This is just one of the noticeable trends that occur whenever a new set is out. There is bound to be a price jack for certain if not all cards that are of a same clan that is being support.

To further illustrate, another example here is that of Prism I, Vert- which has no reprints. It has seen a price increase to a high of 50 dollars (Prism Image, Vert, 2016). And all this is due from a potent support from the new set. In both cases, it's seen that there is a trend that prices will spike with a new support. How or why this happens is attributable to player psychology of band-wagoning and wanting to win with the newer support.

Apart from all the trends that are seen, there are situations to which the price of a single card will hardly see a drop. Such cards does exist due to the level of importance, particularly in competitive scene. Touya (2014) has noted the case with Perfect Guards (PG). Because people need it to guard over an attack that has high power or critical. This is further supported where he said that cards like those for popular clans is valued at around 11-14 USD and a play set of 4 will cost around USD 44.

Similarly, the same trend is also noted in the price of Chronodragon Nextage. A staple in Gear Chronicle decks, it is noted that the price of Nextage stands like a high USD

93 (Chronodragon Nextage, 2016). Iftitiah (2015) justified that this card allows for a second attack with guard restriction and additional hand cards from drive checks. With both trends noticeable, it may seem that functionality and competitive gameplay will affect the card prices.

Another factor that is seen through the development of single card prices is that cards that are nice illustrations are getting a bump in prices as well. One good illustration is School Etolie, Olyvia, to which was reported to be a rather expensive card due to the art and the rarity to which is obtained (Bermudaking, 2015) and further attributed to the necessity of having a playset of her in order for a proper functioning of the card.

1.7 Problems with the secondary market

While the existence of a market that allows buying and selling cards are a good thing to players, it is still noted that there are sometimes, disputes in the agreement on the price. While official sites like TCGplayer.com has a price tag in their sites; the same cannot be said about other avenues. In particular, what is referred here is the transaction undertaken between players in the local scene (as in players looking at other people's binder and wanted to purchase a certain card). These are situations in which both parties are going to have to agree on common grounds; as with the case of willing seller and willing buyer. The problem arises when both parties are unable to reach through an agreement as there is no fixed price. Negotiation skills aside, there is a common problem of not having the correct pricing for a particular item and this is one of the issues in the secondary market.

Another problem here is that while people may make reference to prices stated in either websites as well as shops in order to determine the actual price, there is a potential risk of overstating the fair price for the card. This is because unlike players (who has cost in terms of purchase and opening packs), the pricing for singles in a shop tends to be different.   The difference is in the sense of covering the shop's overheads (cost of purchase, utilities as well as wages) and thus, there will be a high chance that the fair

price will be overstated.   Should players follow blindly at the price, it will result in distortion in the fair value as players should not have factor in those.

Referencing prices from online sites would also bring in another possible risk of overstating the price in regards to currency fluctuations.   While sites such as TCGplayer.com may have somewhat accurate pricing; it has to be noted that pricing is in USD. While USD is a currency standard that is widely accepted, the problem is when the conversion of USD to respective currency. If the local currency is weak against USD, then the pricing of a card in the local scene will be deviated due to the exchange rate.   This again will cause argument in the parties of deal as conversion prices will lead to ridiculous pricing. Thus, there is little or no way to ensure fair pricing for both sides should such method be adopted.

Another problem in dealing with the secondary market is the fact that players themselves are causing price disparity. This is because the players themselves are the end users of the product and being a collectible item, their purchasing attitude matters in the market. To put it in simple terms, any actions taken by the player to demand for a card would cause a change in the quantity available in the marketplace, thus over demanding for a card would result in the increase in price as sellers will know that they have bargaining power on a demanded card. This is influential in that any increase in prices (if known) would result in a following on the price; thus overstating the fair value of a card.

Additionally, one of problems that occur in secondary markets is that prices of single cards, in particular the newly released ones tend to have a higher pricing upon release. This creates a situation whereby prices of singles are set high upon release and making it difficult to gauge the fair price as the prices are distorted from the beginning. Thus, unless there is an adjustment made by the players, it will be unreasonably price.

1.8 Problem Statement

From the previous paragraphs, it can be surmised that there is a need for fair price for the secondary market so as to not cause problems to all parties. Therefore, there should be a mechanism to rate pricing of cards based on qualities exhibited. And this can only be achieved if there is a study on the factors that affect pricing of a card.

The study's problem statements are follows:

1. What are the factors that will affect the price of a single card?
2. How relevant are those factors that will affect the prices of card?
3. How do the factors studied influence the price?
4. What are the implications of the factors affecting the price?

1.9 Objective of study

Given that there is uncertainty in the pricing of single cards, the purpose of the study will focus on the factors that affect the pricing of a single card. This study will attempt to discover the factors that are influencing the prices of single cards in the game, and in particular, the secondary market. The reason for this is to allow readers of this study to take note of the current situation of secondary markets and not fall into the trap of overpricing cards that will harm the community. This study, although is based on Vanguard; may be able to deliver value to other card games as well. From an academical point of view, the study aims to add value to the study of TCGs and its digital counterpart by attempting to discover factors that will affect the pricing of a card, thereby allowing readers and researchers to understand how or why TCGs are able to generate audiences.

On a more specified scale, the study aims to:

1. To assess the factors that affect the pricing of singles
2. To attempt to validate factors discovered in affecting the pricing of singles

3. To attempt to provide answers to rationalize with what is happening in the trend

4. To attempt to generate awareness, knowledge and understanding on the factors' impact that is relevant to the game.

1.10 Scope of study

The scope of the study will be on players of Vanguard that are within the area of Malaysia. They will be asked to assess the factors that affect the price of singles and their response is the basis of evaluation.

1.11 Significant of research

Below are some of the significance to the study that may contribute:

1. The discovery of the factors influencing the price is beneficial to the TCG community and the players themselves as it would provide reasoning as to the economic nature of the cards purchased. This will allow them to rationalize as well as finding out a way to price cards that are fair in the market.

2. The discovery of the factors will be helpful to shop owners or sellers who are able to understand what major factors affect the prices of singles. This is hopefully allowing them to understand better the complexity of the secondary market and allow them to make economic purchases that helps in developing the local scene.

3. The discovery of the factors affecting prices will hopefully point out where the areas that the game developers should focus on and what level of support that they should give. It is hoped that it will also be able to point out certain degree of overplay in the game to which developers should take note of in order to balance the game.

4. The discovery of factors affecting the price will contribute to the existing lack of literature in the academic field, as well as providing them with insights as to how this activity has evolved, thereby allowing people that are not players themselves to understand the community better.

1.12 Definition of terms

1. Secondary market – This will refer to the market to which players will trade cards in order to get what they want. It can be both online or physical, but the area referred to here will be in a local context as international market is filled with much uncertainty that will undermine the result

2. Trading – This will be used to refer actions of buying, selling as well as the act of exchanging cards in the secondary market. This is different from purchasing from booster packs or trial decks in the game

3. Trial decks – This is a term refer to a pre-constructed set of cards that are made ready to play upon purchase. The term is used in Vanguard, but other games may have different naming for the same thing. An example of this is pre-constructed theme deck in PKMN TCG or Structure deck in YGO. Do note that there are variants to these decks as they are there for a new expansion and sometimes act as a stand-alone product.

4. Expansion- This is the term used to represent sets or series of a card game. In short, it refers to the sets in a card game.

5. Booster pack – A booster pack is a pack of randomly inserted card that is from an expansion. Usually having a fixed amount of cards (subjected to game producer) that are from the same expansion but having different rarity within the packs. For example, a single booster may have a copy of rare card in a pack, and you are guaranteed a rare card in a pack; but you will have no idea what you will get from the pack due to the randomness in booster packs.

6. Singles- This will be referring to cards that are sold separately by players or shops. It is those cards that players obtain from booster packs or trial decks and are not using it.

7. Advantage – This means that a card (be it by itself or through combo plays) generate additional bonuses during play. This is achieved in 2 ways, either through a cost reduction in performing a combo, or a better effect during play in expense of the same cost.

8. Combo – This refers to a step of moves performed in tandem (usually in your turn) by the interaction of one or more cards in play to create additional effects or synergy that will make you gain an upper hand.

9. Perfect guards – a key term in Vanguard, these are cards that (as the category implied) prevent you from taking a damage at the cost of dropping one card from hand when they are placed on Guardian circle (for layout of the game and the phases involved, please refer to the appendix). Newer Perfect Guards (from GBT01 ONWARDS) will have additional effect when played with a specific deck and will do a lot more than provide guard.

CHAPTER 2

LITERATURE REVIEW

2.1 Secondary market from the viewpoint of the community

Seeing as how the community influences the secondary market, a research on the views in the secondary market is important. This is a rather unorthodox method as not many researcher had tried to see what the community sees. Thus, a look through on it will provide valuable insights for the study as they are expressing on relevant issues affecting them as a player.

A review on community generated content indicated that whilst not many had noticed the issue, Differentfight (2016) had reviewed and found that there is an underlying issue of singles getting overly priced. In his video, he detailed that the issue of pricey cards happen due to:

1. The irrational behavior of players being over hyping on cards that are new. Players are easily driven to hype up the said new card and will have the tendency to make purchases on the clan that the unit is in.
2. The same applies to the potential future support, to which older card related will increase in prices. Similar to point 1, players are going to purchase key components to the cards in spite of the fact that the new support may not run well with the future support.

3. Cards that are staple, or cards that have 'Waifu' potential or cards that are good will inevitably face a high price.

4. The pricing that was used is set by hype and people without proper information. This means that they are running on different pricing scale. It also refers to the price randomly set based on "gut feeling"

From his explanation, it is noted that there are factors that will affect the prices of the singles. This points to the need to further assess factors that affects prices of singles. Indeed, SimplyJeff (2015) pointed out that the major reasons why players will take up a clan is based on 3 simple factor- play style; artwork and budget. He further detailed that these factors affect player differently thereby influencing the market as well. Thus, considered that factors mentioned will influence player purchasing decision.

How this affects the pricing of a card is depending on players' preference, which influences pricing of singles. Just as indicated by Differentfight (2016), prices of cards have good abilities are going to increase in price due to the demand of players. Similarly, attractive illustration entices player as mentioned by SimplyJeff (2015) that artwork determines the clan played. He further illustrated that in Cardfight!! Vanguard, the proper representation of this characteristic as per people's view is the clan Bermuda Triangle- to which it features mermaid idols.

Having artwork as a selling point is not uncommon as Adinolf & Turkay (2011) found that in another TCG indicated that collecting is one of the attraction factors of the game. They reasoned it to good art that motivates people to collect. The evidence suggested that artwork is one of the pricing factors. This is in essence, what Orsini (2015) mentioned by encouraging spending by giving the consumers what they want.

However, the above explanation is insufficient to justify overall market pricing system. In addition, it is still not explaining the other issues spotted by Differentfight (2016). Team Absolution Vanguard's video (2015), however, may shed light to those issues not covered. They commented that just like any possible economic markets, it is all due to the demand and supply. This is further explained in that a possible potential future support. Bushiroad tends to intentionally leak preview posters and information

to imply potential future support. This will lead to speculation. Knowing that the market has speculators and players who wanted to play the newer cards, this creates a hoarding or a stock up of the purported card. Allowing players to benefit upon the release of the card.

Team Absolution Vanguard's (2015) illustration of Chatnoir as a card prepare for hyped up due to future support release indicated that it will not only increase demand, but also cut down supply in the market. Thus, creating shortage thereby inflating the price. Differentfight (2016) illustrated this, by pointing out with Holy Mage, Pwyll. This card had spotted an increase in price to around 20 dollars just when further support of Gold Paladins (the clan that Holy Mage, Pwyll is in) is announced. He further contended that the irrational behavior arise even though Pwyll has little or no synergy. This is because the new boss card in the latest set does not make use of Pwyll's ability.

Differentfight (2016) also highlighted that there is a prevalent trend in Cardfight!! Vanguard. Whenever a new support came out reliant on old support, there is an increase in the price of both cards. This seems that the community is subjected to information speculation, resulting in a hype on cards. With supply dwindling as people are looking for copies of the card (for playing or resale purpose), this has created a shortage. Thus, hyped up future support is a factor in affecting the price.

In addition, this is consistent with the situation of Prism Image, Vert, who saw increase in price just after the day additional support is revealed. So, there is a prevailing trend that future anticipation and hype drives the prices of singles.

Another issue, the notion that a card's effectiveness denotes pricing is again widely discussed and it is back to general economics. Team Absolution Vanguard (2016) demonstrated cards, due to the effectiveness will have a higher demand. Subsequently, dwindling supply increases the price. This was the illustration of Chronodragon Nextage. In their video, they contended that information released by Bushiroad on the increase of G-zone attracted more demand and that leads to further inflation of the price. This is bad as price of Chronodragon Nextage is high before the news as due to the rarity. This correlates to the study done by Ham (2010) as the rarity does usually

use as a means to limit the availability of the card as to prevent unhealthy gameplay. As with the case of Chronodragon Nextage, the high rarity is justifiable with the power and utility provided, enticing players. It is thus, a staple that is not widely available. In conclusion, the effectiveness in play is a factor determining the pricing of a card and sometimes it will worsen because of the rarity.

As such, there is a need for taking into the viewpoints of the community and its generated content to understand what players think as factors affecting prices of singles. Boon, Grant and Keitzmann (2016) noted the importance of consumer generated content (CGC) in affecting the overall product. In their study of CGC in Magic: the Gathering, they noted that such content created are not only useful for the company to extend its brand but also helps to generate the relevant customer experience that will further enhance the brand of the product. Specifically speaking, their research noted that card developers do allow for a certain degree of CGC within the community; in areas of tournament hosting, discussion sites as well as fan generated videos that teaches and provides assistance to players. The existence of such content generate values to all. Additionally, it is also noted that such contents are used not only by community, but sometimes by marketers, researchers and organization as to generate market information and understanding consumer behavior. In relevance to this, CGC reflects the state of the users in the secondary market and thus, any sentiments and observation may point to the identification the factors that are affecting the price of singles.

2.2 Research done in the case study

To further assess the factors that affect the pricing of the card, namely illustration, hype on future support, effectiveness in play, rarity as well as community influence, a number of cases is checked and reviewed as to find out what factors affecting the price that is supportive of the observations in the community

2.2.1 Illustration and hype of future support

Case 1: the study done by Theddy (2015) on consumer behavior of Vanguard (to discuss on issues of demographics and purchasing behaviours)

Theddy(2015)'s study on consumer behavior of Vanguard players in Surabaya, Indonesia has indicated that there is a market for Vanguard. In his study, he studied players who had experience in the game, and noted below:

1. The demographics of Vanguard players are mostly teenagers, with a higher percentage of male teenagers than of female.
2. The purchase is by both old and new players and that usual spending pattern around 500000 to 1 million Rupiah.
3. Players tend to make purchase due to the anime and would have make purchase of 3-5 times per month.
4. Players tend to purchase singles as well as card sleeves in addition to the available products.

In his study, it is noted that players do view single cards in the secondary market as a source of purchase, therefore, it indicates that singles are important in the perception of a player. This said, however, the study did not investigate as to why singles are preferred as well as what are factors that affect them.

2.2.2 Illustration

Case 2: Perkhounkov, Frye, and Franklin's study (2015) on MTG singles price prediction (Discussing about the effectiveness in play and illustration of singles in MTG)

Their study in the behavior of prices of singles have noted that card attributes as well as tournament performance is a factor in affecting the price. According to them, the predictions are that are based upon the features mentioned above do provide a certain degree of confidence in prediction of the prices. However, it is noted that their study

has not been able to provide any further relationships or explanation as to how or why the factors mentioned above affects prices of singles. In the research as well, it is noted that the aspect of tournament performance is rather limited as they used deck-list from official results. One of such problem is that it does not reflect the actual usefulness of the card. Meaning to say that it did not cover the areas of casual plays; which may have a different point of view on how cards are "good". Nevertheless, the study done by them is also coincidentally pointing to the same items said by the community. That is, if a card is good; it will have value. Likewise, if the card has good attributes (in both illustration and effect) then it would be logical to see it increase in price.

As such, the issue discussed here in this article relates to the fact of illustration of a card as well as the performance of a card is important in determining the pricing of the single as their study of card attributes directly relates to illustration as a factor to study. Interestingly, this seems to point to the aspect of hedonic motives in the study of Zolfagharian and Cortes (2011). This is also in accordance to the aspect of Epistemic Values (how this item induce novelty and knowledge) in the consumption value theory.

2.2.3 Rarity of a card and community influence

Case 3: Findlay and Santos' (2012) study on baseball card prices (Discussing about the performance and availability)

Findlay and Santos' (2012) study on the secondary baseball card market is a rather interesting case even though it is not directly linked to TCGs. As a continuation of the study done prior, they have noted that baseball cards in the secondary market is priced based on factors such as availability of the card, the performance of the player(as in, a player is worth more if he performs in Major Leagues in real life) as well as the race of the card. Interestingly, they found that availability and race have a negative relationship to price, while performance and race all have positive relationship to price. Additionally, they have also noted that the collection condition of the card is an issue as well, as they noted that there is a PSA categorization of the card's condition and creates a pricing for the said card in the said condition. To put it in simple terms, a

card that is of mint condition will usually fetch a higher price of the same card that is not.

As informative as the research is, it is noted that the factors used are not really suitable for the study. For starters, the area of race is not applicable to the study. This is because, even though race is a thing in Vanguard, its use is not that prevalent as there are only a few cards that focus on the race column. The issue of card condition although seem viable, is able to be controlled as well as players will not really consider getting cards that are damaged (and as same as the research, the condition of the card will be in good condition, as opposed to damaged card). The items on performance is, again debatable as there is no real life performance of a card apart from casual and tournament plays.

2.2.4 Effectiveness in gameplay

Case 4: Fink, Pastel and Sapra's (2015) research on card features of MTG.

Their study noted the lack of focus on the attributes of the card itself, and in their study, it is noted that while prices of singles are dictated by the performance and rarity, there are signs that attributes of a card is affecting the price of the single. Specifically, their results indicated that cards that have ability to draw cards from the deck or deck filtering mechanics tend to be in favor of higher power and cost of summon (the cost for the unit to come into play). This makes sense in that cards that have ability to net advantages in game will have preference over others. However, this may differ from Vanguard as each deck will have a different strategy and that not all clans will have the luxury of netting hand advantage with minimal cost as it may not be in line with their core strategy. The lack of hand advantage generated can also act as a restriction to clans that are overpowered and hence it is not really a good indication. This said, however, it is noted that the main point that needs to be emphasized on is the effectiveness of the card in relation to the deck it is put it. A card that is in good synergy will arguably be more effective and hence would be expecting a high price. Another

thing to note is that the study never touched on the issue of the artwork of the card, which, as suggested by the community thoughts as somewhat important as well.

Case 5: Pawlicki, Polin and Zhang (2015) study on MTG singles

Pawlicki, Polin and Zhang (2015) also noted the same importance in the effectiveness of the card in affecting the price. Additionally, they noted that usage, sales volume and is having an impact on the profit of the card. This again, may point to the fact that cards that are highly transacted will result in higher prices due to possible lack of supply.

Therefore, basing on cases 3, 4 and 5, it is noted that performance of a card is important as it is not only stated in the community view, but also the cases of study by several researchers as well. This will, therefore be a factor of study as it would make sense that cards that have good performance in play will generally be a factor in determining the prices. The issue of effectiveness in play is chosen as the factor as to be investigated as well. Looking at other researches, the item of performance is also noted in other researches as well, as will be supplemented below in framework formulation section. This correlates to the aspects of functional Value (how this item works or performs) in the consumption value theory.

2.2.5 Rarity

Case 6: Ham's (2010) study on rarity and power in TCGs

In his study, he argued that one of the issues that TCGs faced is the lack of balance between cards. As a result, game developers tend to limit the usage of the powerful cards by adjusting the rarity on the card or assigning a higher rarity to it in order to limit the amount of cards available to the player. He notes that due to the rarity of the cards, this encourages the purchase of booster packs and at the same time, creates players who are willing to invest plenty of resources to the game for the rare cards.

This notion is called a suitcase player, and that will cost the game to be developed into a more cash intensive hobby as the powerful cards are so rare that they themselves need a huge investment in order to net a copy. This is further increased in difficulty in the sense that randomness in packs would mean that it will be hard to obtain at a minimum cost. It is also noted that such a reliance on rarity will result in player hoarding as well as a higher demand in the secondary market. Therefore, it is noted that developers should really limit overly powerful cards by making the card more costly (in terms of gameplay resources) to use instead of limiting the number of cards available to players.

From the study, it is seen that the issue of rarity of a card does affect the prices. This is due to the effect of scarcity created as a result of the need to balance out power. Rare cards in a game will have higher price because they are harder to get, and players getting the card will be expecting (and willing to pay) it to be a bit more expensive because of the scarcity of the card. This is also similar to the study done by Koah (2014) and will be further explained in the next section. Thus, the factor of rarity will be an item to the study. This is in accordance to the theory of freedom restriction, which states that items that are not easily available have higher value.

Additionally, the same study by Ham (2010) indicates that there is a possible investment or speculative aspect in the games itself as he pointed out instances of hoarding and selling as well as suitcase players. This means that there are players who are going to use the hype generated for profit purposes or in this case, restricts resources of others to play a certain deck. Thus, the study by Ham also indicated the players will use the hype to create profit for themselves, either by making a sale from the hype or limiting other resources. This, will be the aspect of hype in the study and making this a factor for to study as Zolfagharian and Cortes (2011) also noted that speculative hypes are a part of economic motives and it coincides with the Epistemic Values in the theory of consumption value.

2.2.6 Community influence

Case 7: the study of community behavior by Adinolf and Turkay(2011) (Discussing on community influences)

Adinolf and Turkay's research indicated that there are 3 distinct reasons for TCG to be attractive to the players, which are collection, creation and community. They noted in their study that the players not only enjoy playing with one another with the cards that they collected and the decks that they created; but also the social interaction between players whom had never met. It is also noted that players do thrive on the aspect of challenge and learning as a motivation to play the game. While it is noted that all the aspects are important to the game, a highlight that needs to be mentioned here is the collection aspect, as it is noted that people do collect cards. This may mean that there are things that attracts them to collect and the design of the card is important. They also mentioned on the issue of rarity that will deter a player from playing (as the rarer the card is, the more expensive it is) or making a playable deck, thus, it seems to point to the issue of rarity having a connection to the price as well.

From their study, it is noted that the community itself influences the pricing of the card as players buy or demand cards just so that they can get involved in the community. Thus, the issue of community influence is noted to be a factor in the study as there is evidence indicating that players buy cards because they want to interact with the community. Additionally, their research also affirms the factors mentioned (illustration and rarity) that has been a subject of study by researchers. More importantly, it also highlights out the Social value (how it helps to associate to a group) in the theory of Consumption Value

2.3 Summarization of the case studies

Therefore, basing on the overall research done, there is a notable trend that is helpful or at least help to pinpoint the direction in the formulation of the factors in affecting the price of singles.

1. The cards themselves have an influence in the price of the cards. Given that there are some research pointing out that the attributes of a card is important; as well as the community's perception on the importance of the illustration, it seems that good artwork is an attractive factor that influences price and that is not being previously studied.

2. The hype created on cards that are gaining future support is another issue to be investigated as well. This is in relation to the fact that future supports that are having synergy with older, complimentary cards are a trend that is noted to inflate prices, as the market has the tendency of speculators and desperate buyers who want to get their hands on the cards.

3. The overall effectiveness of a card in a deck determines how well it fairs in price. As indicated by both the community and the academic research, the performance of a card dictates its price. However, the performance here does not only refer to the performance in tournament play but also the performance of a card in casual play as well as the synergy it has within a deck.

4. The rarity of a card would dictate the price of a card. As indicated by the research done by Ham (2010), there is a causal relationship between price and rarity and the implications of such mechanisms. Likewise, there has been the same notion in the Vanguard community as well. Therefore, it seems that rarity is a factor that deserves to be investigated as well.

5. The influence from the community is another factor that is affecting the prices of singles as noted in the study of Turkay and Adinolf (2011). People will be making purchases as to ensure the interaction is meaningful and fun, which allows them to gain friends and acknowledgement.

CHAPTER 3

RESEARCH METHOD

A framework is a tool to which supports the overall research direction and indicate the user as to how the issues discussed are related to one another. It is therefore, created as to allow the telling of the relationship between the variables studied.

3.1 The theory of consumption value

To further understand the factors that drive prices of cards, we must try and understand what compels people to purchase (and cause a rise in the price of cards). The theory of Consumption value by Sheth, Newman and Gross (1991) provides a clue. They proposed that consumer purchases item based on 5 major values, which is: Functionality value (how this item works/ performs), Social value (how it helps to associate to a group), Emotional value (how people feel about the item), Conditional Value (how this item offers utility) and Epistemic Values (how this item induce novelty and knowledge). This 5 concepts are a set of feature that provide explanation as to why purchase is done; but the above theory doesn't directly link towards the factors to which prices of single cards are affected by having reasons why people buy. It is just a general indication and thus, further analysis is needed.

3.2 Zolfagharian and Cortes' (2011) framework

One of the key frameworks that are able to provide an understanding on why collectibles are being demanded (and subsequently having a price in market) is done by Zolfagharian and Cortes (2011). In their study, they noted that purchasing of collectibles (namely antique, collectibles and art) is affected by factors mentioned below:

1. Economic factors: buyers are enticed to purchase collectibles due to the reason that such items experience value appreciation as well as portfolio investment.
2. Normative factors: Buyers are enticed to purchase collectibles as a result of social and sub cultural pressures.
3. Identity factors: buyers are buying because of the need to create self-identification.
4. Hedonic motives – buyers are buying because of esthetical values.
5. Cultural motives- buyers are buying because it has significant culture values
6. Intellectual motives- buyers are buying because of its historical value
7. Good cause motives- buyers are buying because it helps the good cause
8. Harmony motive- buyers are buying collectible as to provide harmony to the environment

Note that these factor will later needed to be adapted to the relevance of the study as not all factors are applicable in the formulation of framework.

3.3 The effect of scarcity.

In the study done by Koah (2014) it is noted that scarcity has an effect onto the price of a good. It is noted that the theory of freedom restriction discussed bears similarity towards the attribute towards the rarity of a card. The theory, which stated that an

item's value or price is determined by the availability of the item. This means that any items that are limited will have a higher value, which would translate and reflected in the price of a product. Koah (2014) further explained that such scarcity is affected by the knowledge on the product, as well as the ability to look for alternatives. This is also true to the case of TCGs as well. Since rarity is denoted in the study of Ham(2010) in that there are cards that are limited by the availability in print, this translates to scarcity in the number of cards in the market circulation, thus, the similarity between the two indicated that a card's price is affected by the scarcity of the card as a result of the rarity. This makes it a factor to be studied as well. This is also noted in the study by Hamari and Lehdonvitra (2010) in that online games also employ a scarcity tactic in gameplay, allowing players to capitalize on the scarcity of a drop item by selling it in higher prices.

3.4 The functionality effect.

In the study done by Kim, Wong, Chang and Park (2016), they noted that a smartphone's desirability is based upon the functionality. This is one of attributes that will increase the price, as it is noted that smartphone's performance is measured via functional performance, high performance and stable quality. That means that functionality is not just how good is the performance, but also is it good enough and guarantee stable usage. The idea here is that such performance will lead to increased value by users, which will be reflected in price. This is the same case in TCGs as well, as noted in the community thoughts that cards that are good will have a higher price tag. But, in this regard, the high performance here could be referred to effectiveness while the stability notion here is the consistency of the card. This is an item to assess as cards need not only to be good, but also effective and provides consistency in play. This results in the increase in value of the card, which would be reflective of the price.

3.5 The hype of future support

Perhaps, the best indicator of hyped up prices is exhibited in the economic motive of a TCG player, and this was mentioned by Zolfagharian and Cortes (2011). They stated that just like any other collectibles, people do purchase them for profit purposes. And as such, concepts such as value appreciation and portfolio diversification are things that some people aiming for. While it is noted that portfolio diversification is not linked to TCG, as the players themselves do use the card, it can be noted that having diverse card collection or other collectibles can be considered a portfolio (as people may have other interest as well). Thus, there is a motive to purchase cards that are not played by the seller as to anticipate for profit and all, and having a variety of cards helps to increase the chances of a better collection for sale. In the aspect of value appreciation, it is noted that secondary markets are a place to which trades occur, and such pricing of the card is determined by the market, hence it is not fixed. A card could get a hefty increase in price if there is news on further support or being perceived as useful. This, bears in resemblance to the stock market and that because of this, players can capitalize on the hype and make profit of otherwise unsellable cards because of the volatility. And, the value; yet again, will be reflected in the price.

Since the trend of the community is to have hype on card, such speculative and economic factors connotes to the hype effect, thus, creating a need to study the factor of hype on future support.

3.6 Esthetical value

Both the study of Zolfagharian and Cortes (2011) as well as Kim, Wong, Chang and Park (2016) noted that esthetical values influences the value of the item. This is arising from the notion that there is value in the design of the item, which may invoke the sense of satisfaction and happiness on the buyer. This may seem to be noting of the

illustration of a card, which has been seen in the community as an important note that will affect the price of the card, thus, making it a viable factor to study.

3.7 Price

In the study by Chow, Chen, Yeow and Wong (2012), the concept of price is used as in indicator to the level of value as well as the means of transactions. Thus, the concept of buyers willing to pay and price being a means to consider the value is affirmed. This, is therefore, linked to the concepts that are discussed prior (points 3.1 to 3.6) as all of the factors are linked towards values, which the indicator will be reflected in price. The same thing was noted in the study of Zolfagharian and Cortes (2011)'s price fairness aspect, which helps to reflect the willingness to pay of a collector. This is a key area as the willingness to pay is indicative of the value to which players are willing to pay and can act as the dependent variable for the study. This is because the willingness to pay, which is reflected in price in an indication to how the players value the cards.

3.8 Formulation of the framework

Based on Zolfagharian and Cortes (2011)'s framework, it is noted that several factors (i.e.: hedonic motives) are similar to what is being studied here.

The aspect of hedonic motive talks about the esthetical value of a collectible. That, is in essence, the factor of how a card's price is affected by the illustration as Zolfagharian and Cortes (2011) noted that esthetics is the appreciation of beautiful features like lines, shapes, colors, and meanings found in a collectible. Thus, this aesthetic part fits the bill of illustration in affecting price as it is the appreciation of the artwork that allows the card to have an increase in price.

The aspect of value appreciation from Zolfagharian and Cortes (2011) is referring to the purchasing of collectibles based on financial motives. This means that people will

buy collectible for resale purposes. Because of this similarity, it is noted that such behaviors are reflective of those players who are capitalizing on the hype of certain cards. It has been said that hype generating in cards are based on two motives: 1. To profit from the increase of price when support comes out, or 2. Obtaining cards that are far cheaper and play(later selling off) the deck. Thus, the financial motive is there and is similar to the aspect of value appreciation.

The aspect of Group identification can provide another factor as to what influences the price of a single. Given the nature that TCG players tend to have a community that is fostered by playing or involving in the game, there is an identity creation and group belonging and because of the need to conform to the group (by getting the latest cards and playing the latest mechanism), there is a demand for cards and this increases the price. The aspect of this is people will pay for cards that are demanded as to maintain association with the group that has the same culture.

Interestingly, the notion of the effectiveness of a card or rarity is not mentioned in Zolfagharian and Cortes' (2011) study, but it is noted that other studies have indirect mentions of it. In studies of smartphones, it is noted that product feature (or characteristics) that induce people to purchase or demand for it. Thus, it would make sense to include product features into the study. But, having said that, the aspect of product feature mentioned in the study of Chow, Chen, Yeow and Wong (2012) as well as Kim, Wong, Chang and Park (2016) noted on the performance of smartphones, and thus, only items that are related to performance is to be used (as in the performance of a card is due to the features it carries, like the effect)

The concept of rarity in affecting the price is also noted in the study of Koah (2014) in that it is noted that scarcity affects the price by having the need of perception that it is rare and that such items are limited in terms of stock. For this, the issue of knowledge as well is important.

Basing on the study done, it is noted that the above framework can be adopted with the theories and the observation as to provide an explanation of the study.

	Illustration of a card		H1		
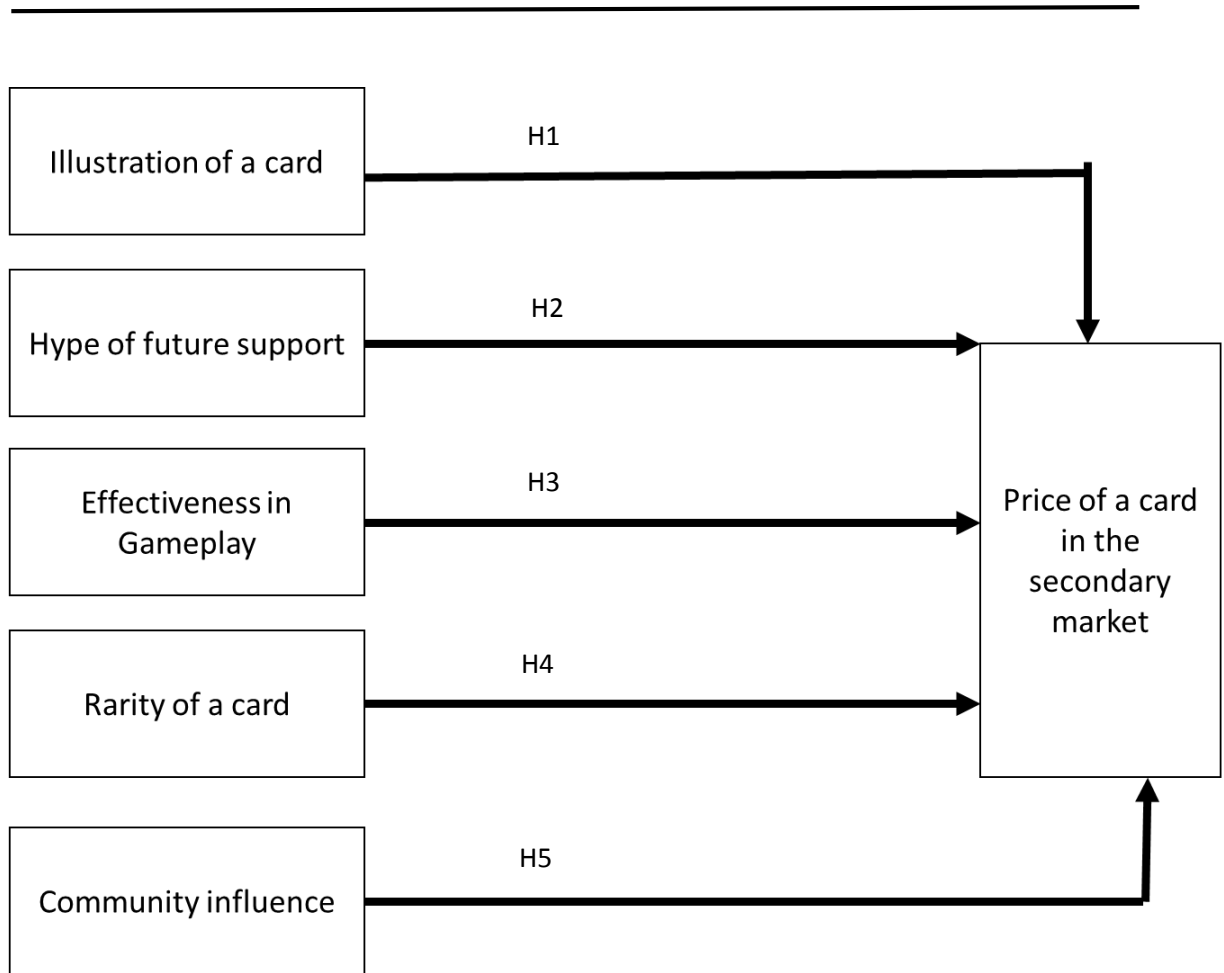
Table b: Conceptual framework proposed.

While the study is on the price of singles, it has to be noted that there is resemblance in terms of the indication of relationship that the factors stated will affect the price of the singles. Specifically, the connections are further elaborated as below:

H1. Cards that have nice illustration will have higher pricing due to the demand. This correlates to Differentfight (2016)'s argument whereby cards with waifu potential is going to have higher pricing. "Waifus", are a term for people to describe the characters that they have affinity or feelings to. This term is interchangeable with "husbando" if it's a male character (Orsini, 2015). This is not uncommon, as there is a clan specifically tailors to that. However, it has to be noted that not all players have the "waifu" affiliation. Players could be attracted to different styles of art as art is a subjective matter of preference.

Due to this, players sometimes will have affinity to a certain card and calls a certain card their avatar, much akin to the show.

H2. Future support leads to inflation of prices of cards as a result of demand. This would mean that players would want to plan ahead for the rumored support. This entices players who are wanting to play the new support as well as current existing players who have played the clan and wanted to upgrade the deck as well.

H3. The card's effectiveness will affect demand for it, subsequently the price. Much summarized by Ham's (2010) research, observation from both Team Absolution Vanguard (2016) and Differentfight (2016), indicated cards that are powerful and effective will be sought after. More importantly, is the synergy between the cards that are allow for more advantages to be pulled from a play.

H4. The aspect of the rarity of a card would mean that a card is hard to get. Due to this, collectors and players alike would want to have it and thus, this increases the demand for the card in the secondary market. Scarcity in the amount of cards produced would later entail the increase in price of a card.

H5. The aspect of a community influence exist as per the study by Adinolf and Turkay.(2011) as there is interaction between members of the game. Such interactions create the need of conformity as well as the need for acceptance. Additionally, it also co notes to the aspect mentioned in theory as well as Zolfagharian and Cortes' (2011) study.

3.9 Methodology

Realizing the concepts and issues to be explored, a survey questionnaire is to be developed as to allow data collection. This study will use quantitative data and will be collecting data to evaluate the factors that will affect the price of the single. The survey questionnaire will be attached in appendix as to allow for future references.

3.10 Population and sampling design

This survey questionnaire will be distributed to players at a snowball basis as well as a self-administer basis to increase the chance of response. The questionnaire, will be targeted to audiences of players who played the game and have knowledge of market fluctuations. This means that they have information on pricing and better ideas how to price a card. This should be a selection criteria as players could have played the game without knowledge on how the community market works. As such, it is imperative that a knowledgeable audience is targeted. Given the lack of such hard to find qualities, it is expected in a sample size of 100 players will be a good indication and at a 5% variance should yield a 79 valid response as suggested by Saunders, Lewis& Thornhill (2012). Addtionally, this also correlates to the study done by Theddy (2015) in that the same sample size is adopted. Being a nation that is similar in terms of culture, the adoption rate of the sample size is also seem logical.

3.11 Questionnaire development

The research questionnaire will comprise of several sections, with the first being a demographic analysis, then follow up by questions of the relevant factor and finally the

relationship between demand and price. Measurements will be based on a 5 point likect scale and participants will need to evaluate the statement issued.

Section A is about demographics and it will be used to analysis as to what are the demographics of the sample. This will include an age study, a study on the race as well as the years of experience in the game, as per Theddy (2015)'s research. It has to be noted that factors such as what the sample spend on is not investigated as the object of the study is single cards, as opposed to the various products offered.

Section B will be on the illustration on the card. As explained previously, a card is said to have demand if it has good illustration. Thus, the investigation here is on how a card is demanded due to the illustration. This will be based on the items by Zolfagharian and Cortes (2011) in aspects of esthetics.

Section C is on the issue of hype on future support, much suggested by the issue in community. This section will investigated the issue of hype on future supports in affecting the demand of a card. Zolfagharian and Cortes (2011) in aspects of value appreciation.

Section D is on the effectiveness of a card in the gameplay. This basically refers to performance of a card as to the price. This will be based on the study of performance by Kim et.al (2016).

Section E will cover in rarity, and will be testing on how rarity is linked to the demand of the card. As suggested by Ham (2010) rarity is a measure for developers to entice customers to buy booster packs as to get it. Due to the limitation in supply, this creates a scene where scarcity for rare cards exist. This same thing also applies to the secondary market as well and this will help measure how rarity affects the demand of a card. This will be based on items proposed by Khoa (2014) in assessing scarcity of an item.

Section F will be on the pricing of the card. This will be used to check the relationship. This will be based on constructs by Chow et.al. (2012).

3.12 Data collection

The study will primary adopt a primary data collection approach, as indicated by the sampling design mentioned above. The data collection will span on around 2 weeks and come from multiple sources such as online survey as well as the distribution of survey forms in local card shops during the period so as to increase the rate of response.

3.13 Descriptive statistics

A study on the demographics of the sample size is a focus, in which descriptive statistics is used to measure the mean of age, distribution of race as well as years of experience in the game. This is important as it would help the study to understand the basics of the population and that it will pinpoint out who are the major players in the market as well. The development of the demographics is also important in the understanding on how players are behaving in the market as well.

Reliability and correlation test will be employed to determine whether the factors are independent of one another and to ensure the validity of the result.

In addition, the mean of each factors will be checked to see the underlying trends. This is done through survey by asking to what level they agree with the statement. Mean, median and mode is also evaluated with the play-style as to observe the trend.

All the data will be collected, and tabulated into a software for further analysis and that it will be used as to interpret what ate the factors affecting the price of a single card

Assumptions made:

1. The condition of a card is removed in the study as implied by the study done by Findlay and Santos(2012). While it seems plausible, it is not relevant in this study as the cards traded are usually in good condition and that there are little

or no cases whereby cards that are heavily damaged are transacted. Moreover, it is also noted that the study done by Findlay and Santos (2012) did not include the item of card condition in it, therefore, it will be assumed that the cards that are traded in market are of good condition. This means that the card is playable and is acceptable in both casual as well as tournament plays.

2. The notion that the demand of a card will affect the price. This means that the higher the demand of a card, the higher the pricing of a card. This is noted in the argument by Team Absolution Vanguard (2015) and that an increase in demand will resulting in the increase of price as the supply is constant. Additionally, the economic law of demand and supply will be applicable here as well.

3.14 Hypothesis testing

The below are the hypothesis deducted for the test:

H1: There is a positive relationship between the illustration and the price of a card.

This is in relation to the study done by Zolfagharian and Cortes (2011) as well as the notion in the community that the illustration is affecting the price, therefore, a hypothesis is developed as to investigate the relationship.

H2: There is a positive relationship between hype of future support and the price of a card.

This is supportive of what is mentioned by the observation as well as the economic aspect discussed. Therefore, a hypothesis is developed to investigate the hype and price.

H3: There is a positive relationship between effectiveness in gameplay and the price of a card.

This has connection to the study done by Findlay and Santos (2012) and that performance of a card affects the price. A hypothesis is developed to investigate the relationship between them.

H4: There is a positive relationship between rarity and the price of a card.

This is a hypothesis developed as a result from Ham (2010)'s study in that rarity will affect the pricing of the card.

H5: There is a positive relationship between community influence and the price of a card.

This is trying to assess what has been said in Turkay and Adinolf (2011), in that the community and interaction affects the need for cards due to social recognition and identification.

H6: There is no relationship between the factors studied and the price of a card.

This is a hypothesis developed based on the notion that all factors may not have a relationship in affecting the price as the lack of literature seems to point that people are still in the search for factors and have not found any.

H7: Of all the factors mentioned, the factor of illustration will be the most prevalent one.

Based on the amount of observations and findings, there is a higher mention of illustration affecting the price in the study, therefore, given that such item has

mentioned throughout the community, a hypothesis is developed to assess if illustration is the highest factor.

CHAPTER 4

RESEARCH RESULTS

Collection of Data is done and upon checking the results after 2 weeks period, the study managed to obtain the responses as per the sample size targeted and a total of 107 responses were available. This has exceeded the sample size as per Theddy (2015)'s study and will be used as to evaluate the factors that affect the prices of singles in Vanguard as well as a simple demographic analysis. Tables and graphs (where applicable) will be attached under the appendix section. This section will go with the demographic analysis, then the analysis of the factors that are affecting the singles of the game, and will conclude with a brief summarization.

4.1 Demographic analysis

From the sample size of 107, the study did a basic demographic analysis. This is done as to understand the nature of the target audience as to provide a picture of the players of the game.

GENDER				
		Frequency	Percent	Cumulative Percent
Valid	MALE	100	93.5	93.5
	FEMALE	7	6.5	100
	Total	107	100	

Table 1: Gender demographics
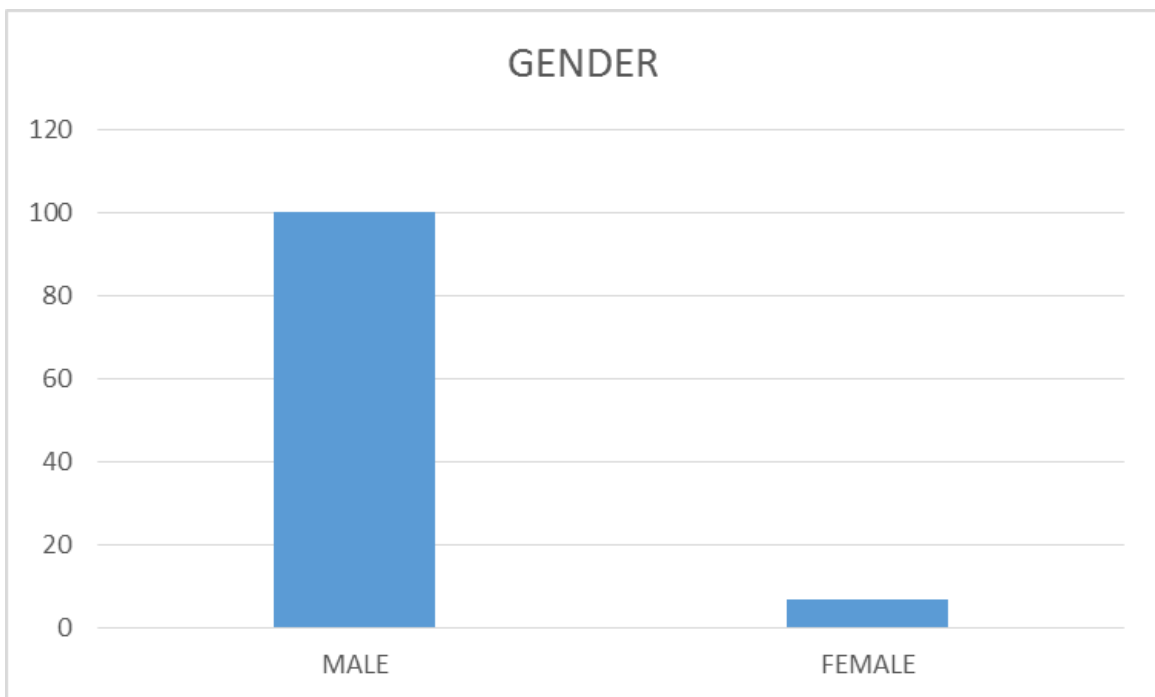
Graph 1: Gender demographics

In terms of gender (table 1 and graph 1), it is noted that the predominant audience of the game is male, as the study indicated that there is a 93.5 percent audience are male players. Female players covers the remaining percentage. This is not really surprising to see as the study from Theddy (2015) indicated that there is a higher percentage of Male players and few female players. While the ratio of the players are different, it can

be seen that the study does follow the trend of players in that study. Interestingly, the number of female respondents also point towards the fact that this is a rather niche hobby and hence it may not really attract female players. However, this is also a problem as well, as there are clans that are suited for female players in the game which they can enjoy, but the lack of female respondents may indicate that there is lack of awareness in the female gender that this game is enjoyable for all and not just by the male gender.

RACE				
		Frequency	Percent	Cumulative Percent
Valid	MALAY	20	18.7	18.7
	CHINESE	81	75.7	94.4
	INDIAN	2	1.9	96.3
	OTHERS	4	3.7	100.0
	Total	107	100.0	

Table 2: Race demographic
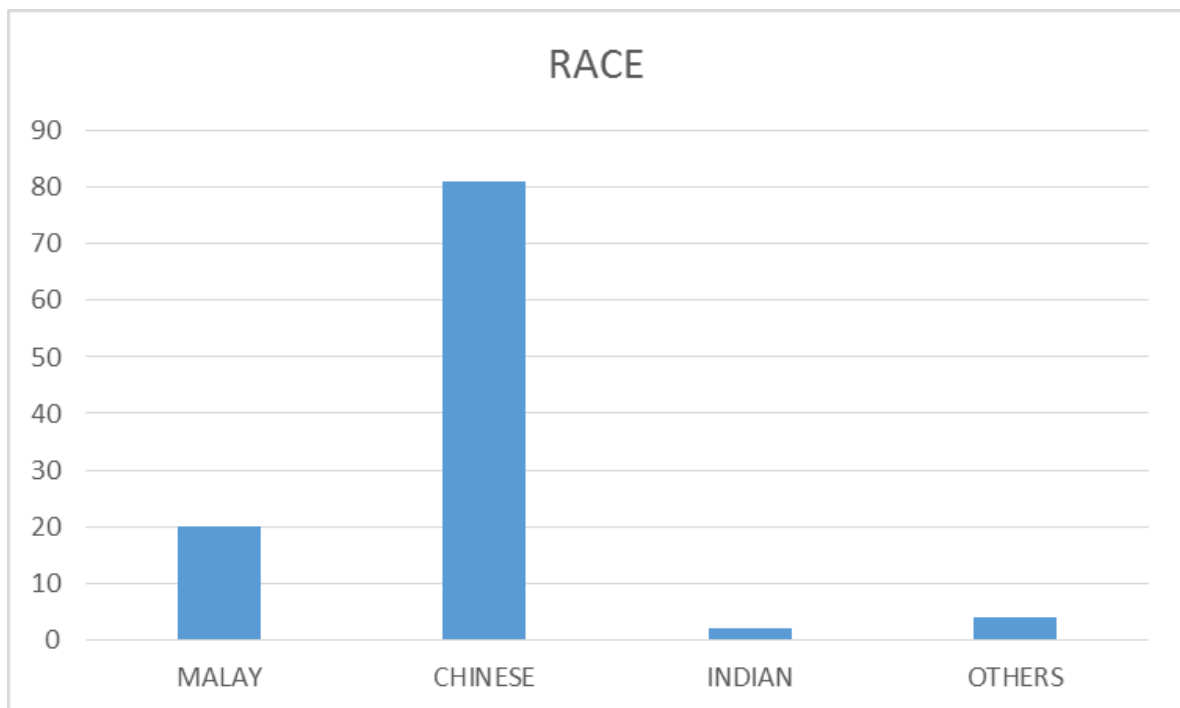
Graph 2: Race demographic

In terms of race distribution (Table 2 and Graph 2), it is noted that players who are Chinese are more involved in the game, in which they account for about 76 percent of the survey respondents. This is followed by Malay players, which accounted for 19 percent of the respondents. There are Indian players (2 percent) as well as others (about 4 percent). This is not comparable to Theddy(2015)'s study as there are no data from his study. However, given on the distribution response, it is seen that the game is actually enjoyed by all races in Malaysia and this is a good indicator of racial harmony due to the common interest amongst players. This is an encouraging sight to see as players do bond with one another as a result of community and same interest and can be used to foster a sense of mutual understanding.

AGE GROUP				
		Frequency	Percent	Cumulative Percent
Valid	18 and below	43	40.2	40.2
	18 TO 19	10	9.3	49.5
	20 TO 21	21	19.6	69.2
	22 TO 24	19	17.8	86.9
	25 AND ABOVE	14	13.1	100
	Total	107	100	

Table 3: Age group distribution
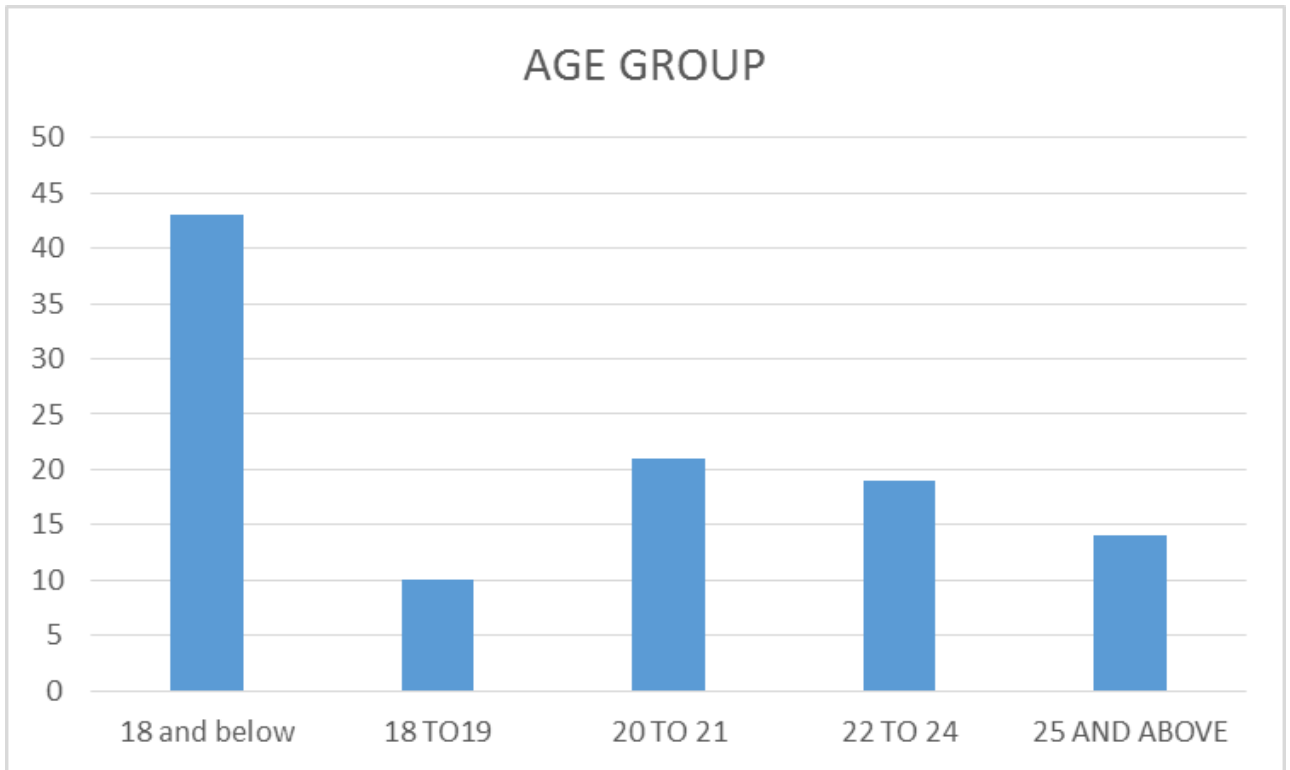
Graph 3: Age Group distribution

In terms of age group (Graph 3 and Table 3), it is noted that around 40 percent of the respondents are of age 18 or below, followed by 20 to 21 (19.6 percent), 22 to 24 (around 18 percent), 25 and above (13 percent) and finally, the last one is 18 to19 (about 9 percent). Overall, the age range does fall within the radius of Theddy (2015)'s study as his study indicated that majority of the players are of age 17-25. This study indicated a further breakdown of the age range and it can be seen that players are a majority of secondary students, following by a key audience in terms of those who are pursuing their undergrad and tertiary studies. This may indicate that players are probably more educated and are of the newer generation (i.e.: 1990s to 2000s) and such participation in TCG is a trend as the boom of TCG is during the time period. (Brian Marshall et.al, 2010)

MARITAL STATUS				
		Frequency	Percent	Cumulative Percent
Valid	DIVORCED	2	1.9	1.9
	MARRIED	3	2.8	4.7
	SINGLE	97	90.7	95.3
	LIVING WITH OTHER	5	4.7	100
	Total	107	100	

Table 4: Marital status distribution
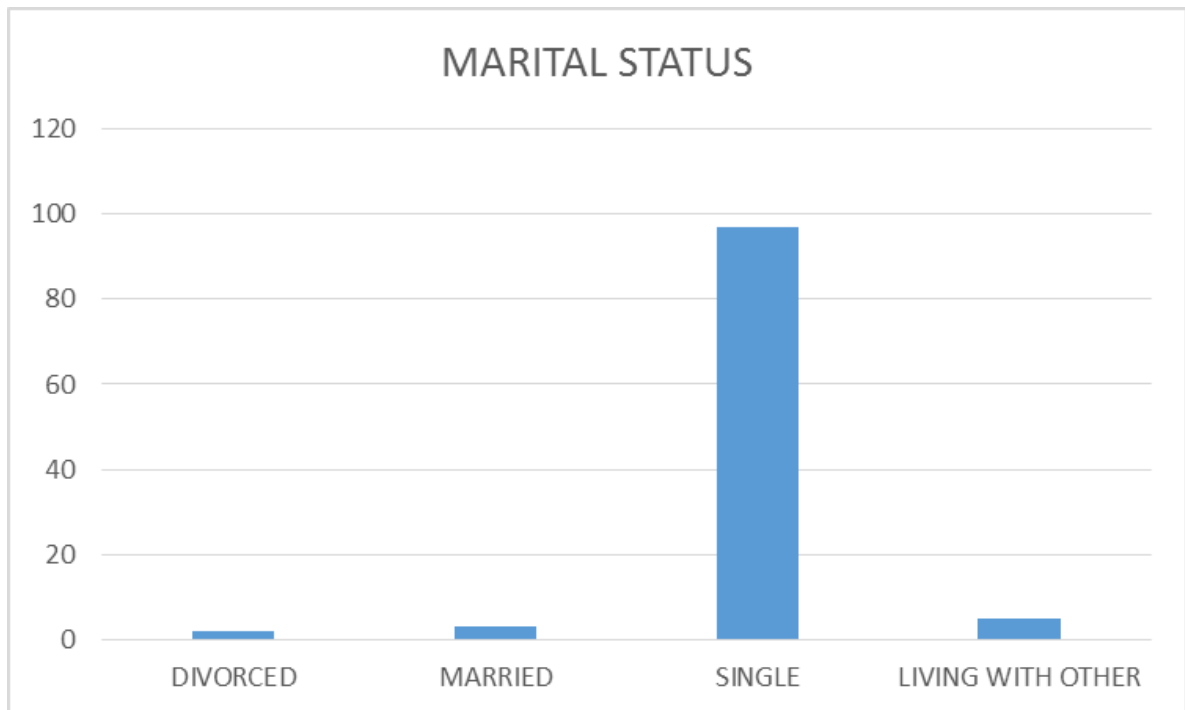
Graph 4: marital status distribution

Due to the distribution of the age group, the same trend can also be seen in the marital status (Table 4 and Graph 4), as the majority of the study indicated that the respondents are single (about 91 percent) and that there are also people who are married (3 percent),

divorced (2 percent) and others. This is an indication that players are more likely to be single when they are involved in the game. The reason for this is because at a young age where studies are more of a priority, teenagers get to enjoy their live without any need for commitment. This, coupled with the influence from peers in school, college or any learning institution, may lead them to take up the game as a source of social identification and sense of belonging. Interestingly, there is a percentage of respondents that are married in the survey, and this may due to fact that they could have been playing the game before getting married and continued the game thereafter, which could indicate that commitments to the game are manageable to them.

EDUCATION LEVEL				
		Frequency	Percent	Cumulative Percent
Valid	PRIMARY	4	3.7	3.7
	SECONDARY	28	26.2	29.9
	COLLEGE	41	38.3	68.2
	UNDER GRAD	21	19.6	87.9
	POST GRAD	4	3.7	91.6
	OTHER	9	8.4	100
	Total	107	100	

Table 5: Education level
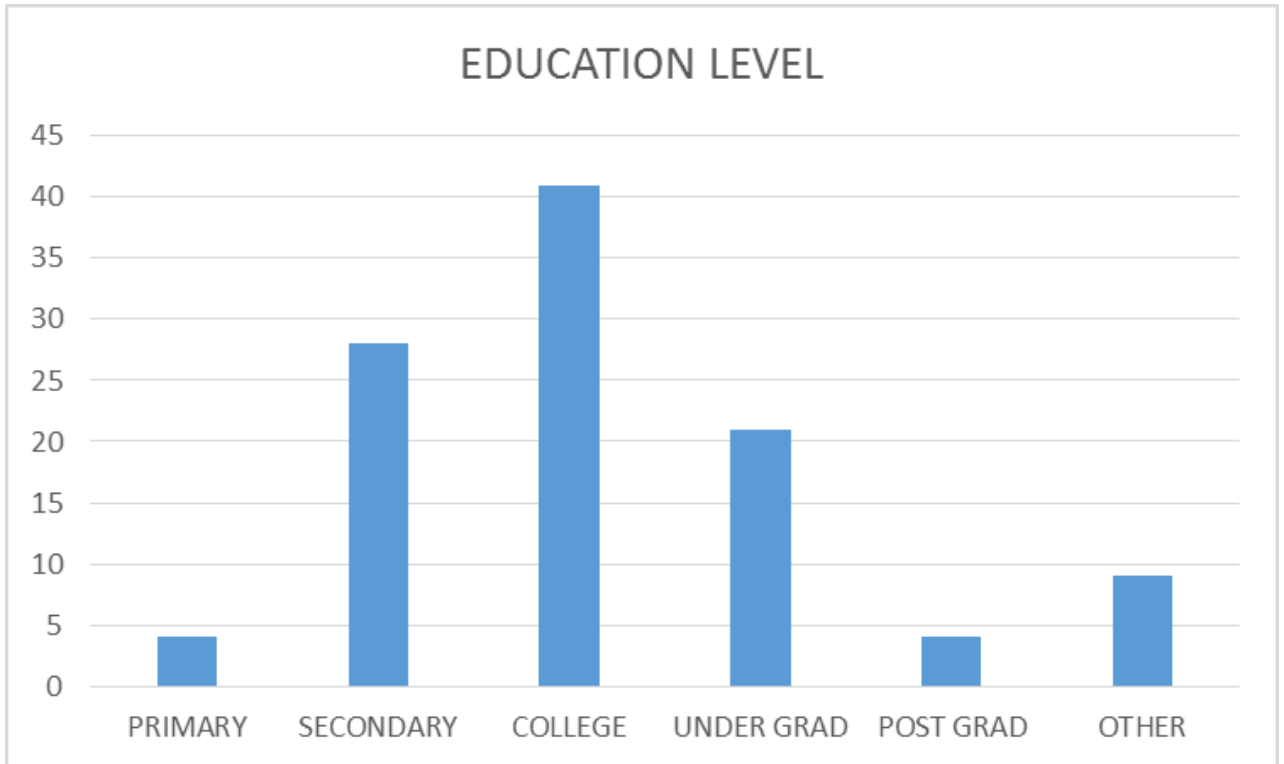
Graph 5: Education level

Another item that is supported with the age group is the level of education that the respondents have. From the survey, it is noted that the majority of the respondents are college educated (about 39 percent), followed by the undergrad (about 20 percent) and secondary (26 percent). This seems to coincide with the age and marital status demographics as the audiences are probably within the level of education that a teenager should have. Having said that, there are those who are under post graduate level education as well; meaning to say that they are having higher qualification and it points that people are educated in the survey. This is an important clue for the study as all these seem to point out that card players are educated and will make decisions that are ration in their response. It also points out that the community is a knowledgeable group, enough to allow for any community to develop.

EMPLOYMENT				
		Frequency	Percent	Cumulative Percent
Valid	STUDENT	70	65.4	65.4
	UNEMPLOYED	5	4.7	70.1
	EMPLOYED	24	22.4	92.5
	SELF EMPLOYED	8	7.5	100
	Total	107	100	

Table 6: Employment status
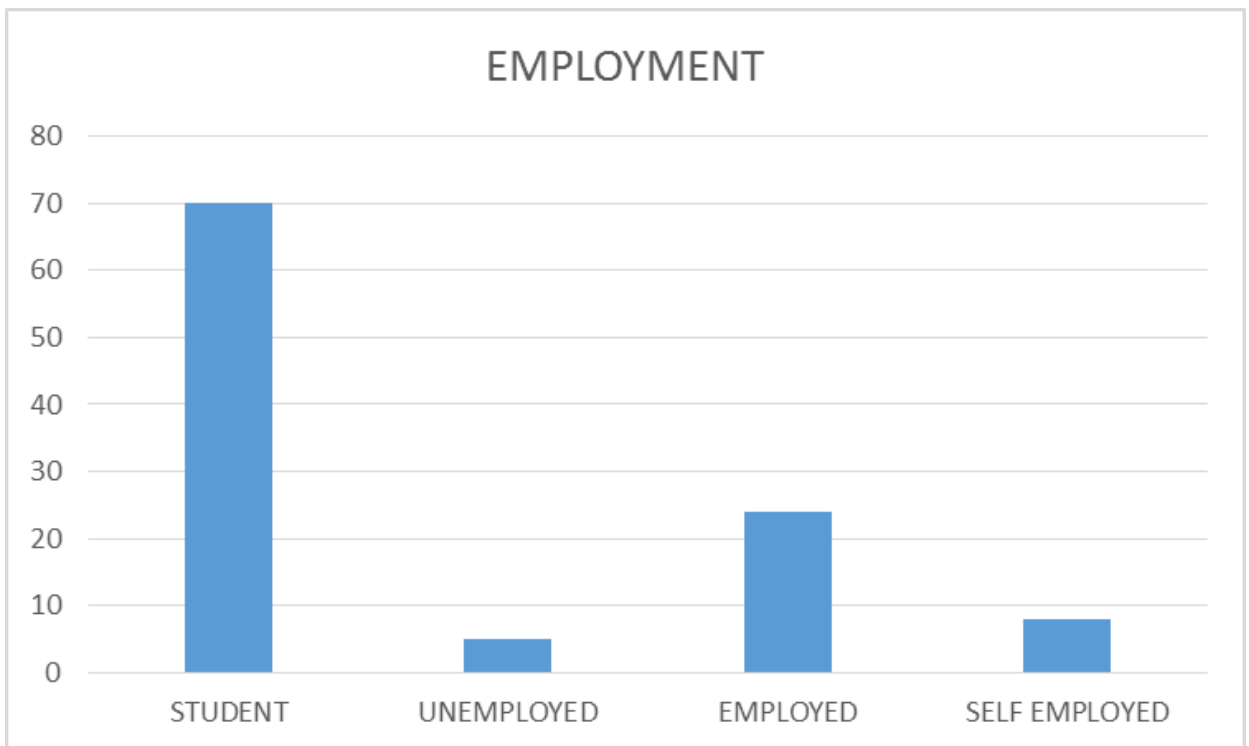
Graph 6: Employment status

In terms of employment level, because the majority of the respondents are studying, it is noted that most of them are students (65 percent). This is followed by those who are employed (about 23 percent) and those who are self-employed (7.5 percent). Surprisingly, there are about 5 percent of respondents that are currently unemployed. This could be that they have just graduated and that they are still looking for a job or considering in further studies. The amount of employed respondents seems to point out that there is a fraction of working adults that are currently employed who are playing the game. Students can also afford to play, indicating that affordability is not an issue for those who are employed.

INCOME				
		Frequency	Percent	Cumulative Percent
Valid	NONE	57	53.3	53.3
	BELOW 1000	20	18.7	72
	1001 TO 2000	15	14	86
	2001 TO 3000	8	7.5	93.5
	3001 TO 4000	2	1.9	95.3
	4001 AND ABOVE	5	4.7	100
	Total	107	100	

Table 7: Income level
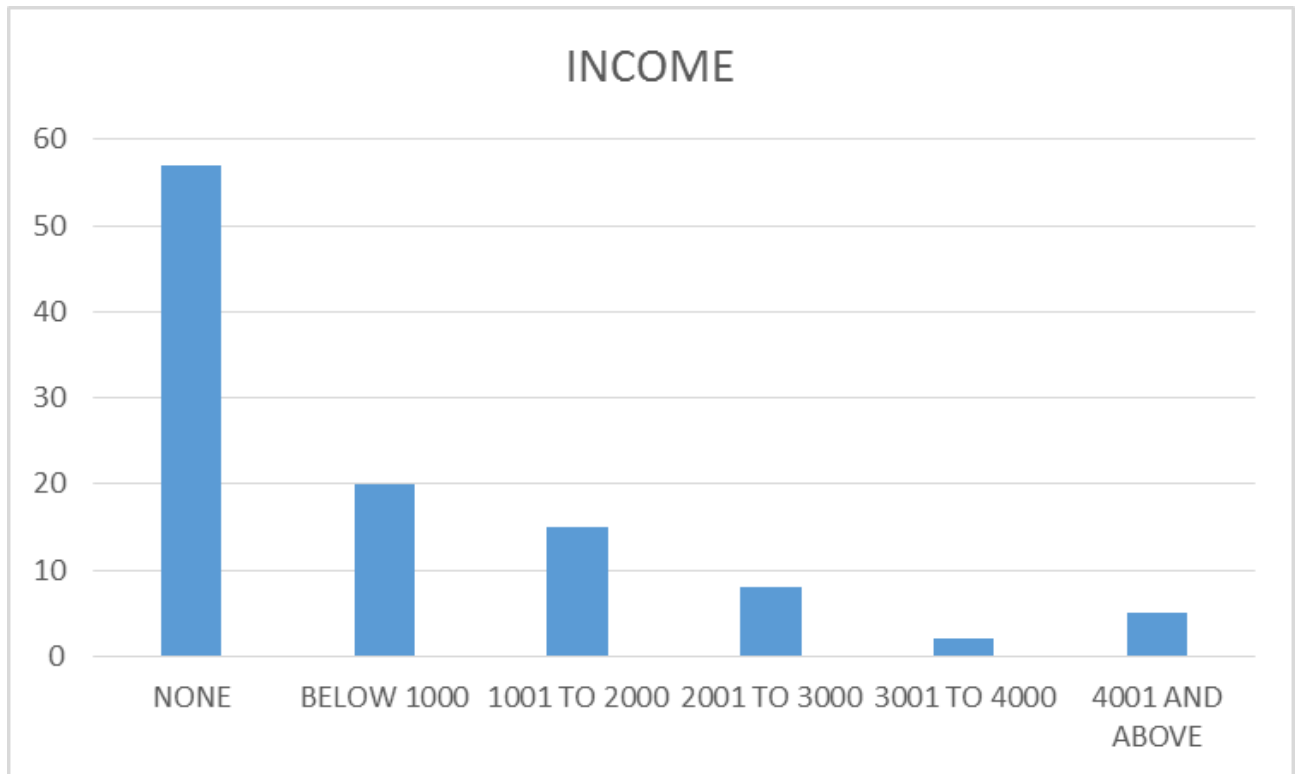
Graph 7: Income level

Income studies on the group indicated that majority of the audience are without income (54 percent). This is followed by the below RM1000 category (19 percent) and RM1001- RM2000 (about 14 percent). This seem to indicate that the player base is not able to spend a lot on other stuff. Another thing to note here is that those who have no income can afford to pay for the cards due to their parents' support. Income earners that are below RM1000 would mean that respondents may have tried out part time jobs (i.e.: during study breaks) as to earn their income to afford the cards. Given the age distribution as well, the range of income is also justifiable by the fact that respondents could have just started their work and hence the pay rate is lower. About 13 percent of the respondents are having income that are above RM2000 and this may indicate that they are audiences who worked longer in the market or that they are specialist and hence can demand for such an income.

4.2 Player behavior analysis

In terms of playing experience, it is noted that the majority of the respondents are having experience of 2 to 3 years (34 percent), followed by 4 to 5 years (32 percent) and more than 5 years (25 percent). This means on average, the player base has experience and knowledge of the game and this is a good indicator for the study as it would mean that respondents are able to answer the questions based upon their experience. This means to say that players who are currently playing the game already has the knowledge on the game and are more of recurring players. Surprisingly, about 8 percent of the players are new to the game and that such percentage may indicate that there is still growth within the community.

YEARS OF PLAYING THE GAME				
		Frequency	Percent	Cumulative Percent
Valid	IN ABOUT 1 YEAR	9	8.4	8.4
	2 TO 3	37	34.6	43
	4 TO 5	34	31.8	74.8
	MORE THAN 5 YEARS	27	25.2	100
	Total	107	100	

Table 8: Years of playing the game
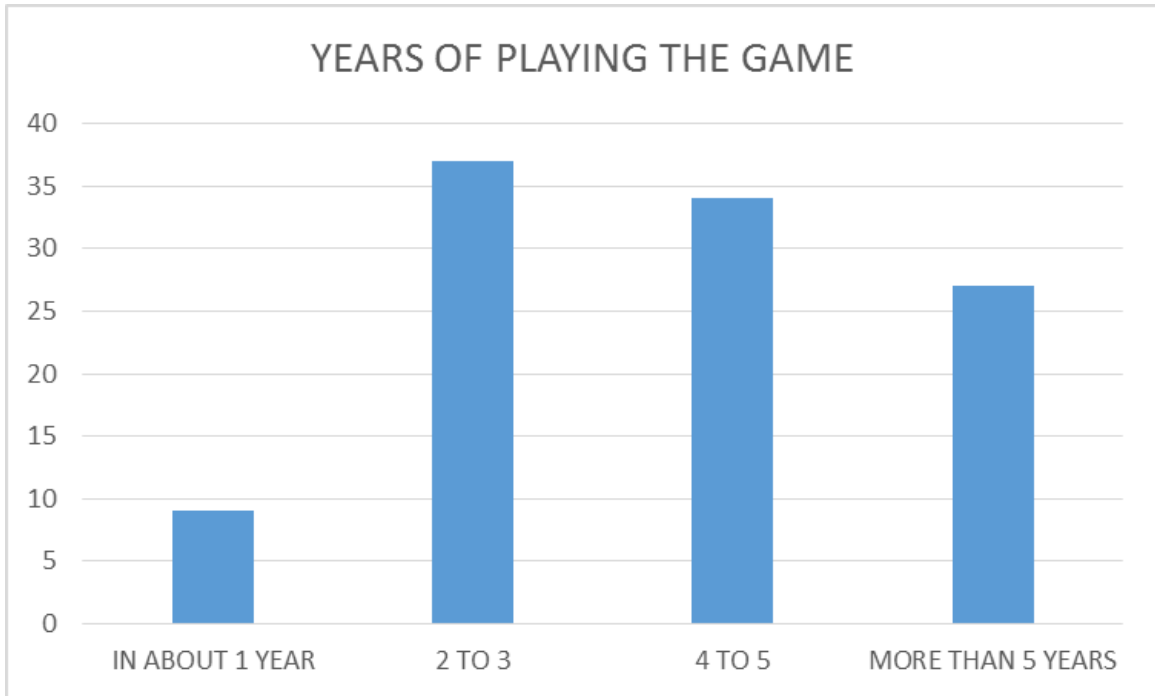
Graph 8: Years of playing the game

HAVE EXPERIENCE IN TRADING				
		Frequency	Percent	Cumulative Percent
Valid	YES	103	96.3	96.3
	NO	4	3.7	100
	Total	107	100	

Table 9: Trading experience

HAVE EXPERIENCE IN TRADING
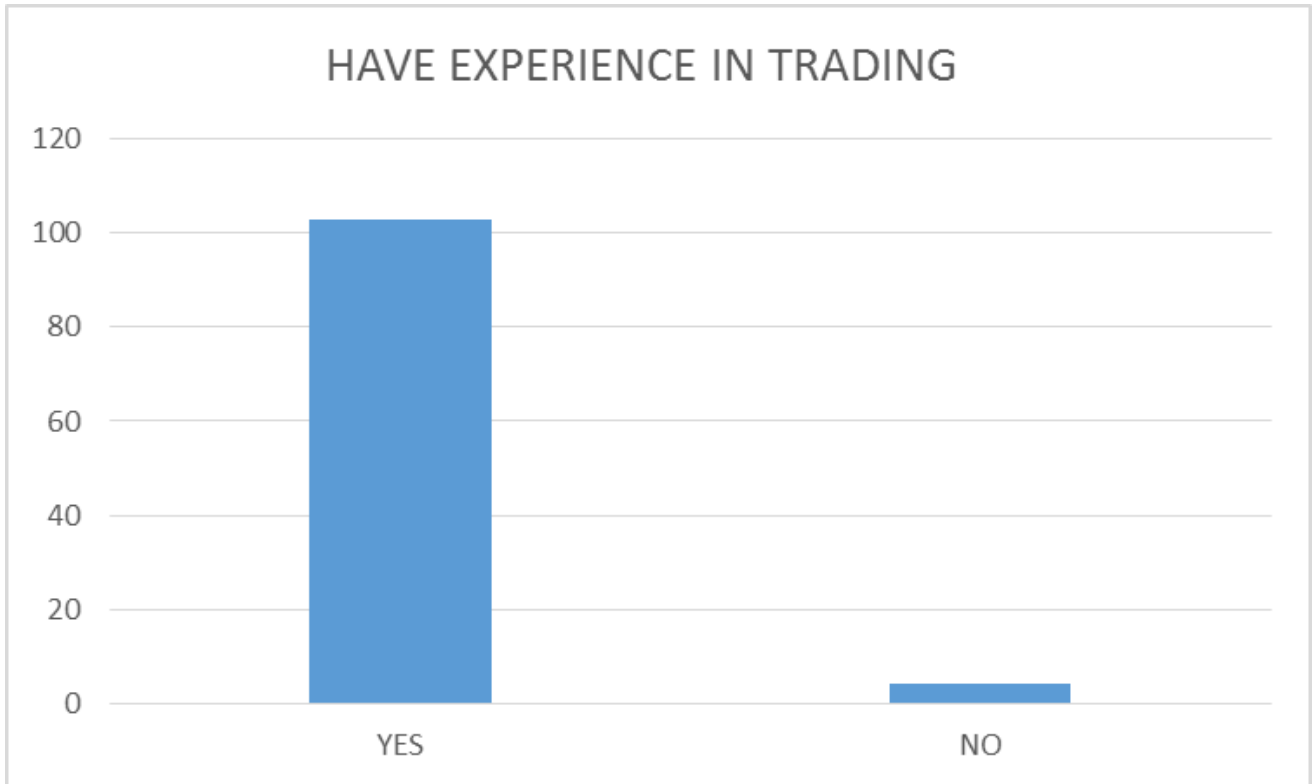
Graph 9: trading experience

Because of the amount of experience exhibited in the studies, it is not surprising to see that players themselves do have experience in trading cards. The survey indicated that 96 percent of the respondents have experienced trading with other players before. This is not surprising to see as the core aspect of a TCG is that they allow for trading within members of the community and that the randomness of packs would result in the need to trade for items needed in the deck. Because of this experience in trading, it can be seen that the community plays an important role and that such activities are a way for people to learn skills that are important in life. This can also mean that there is a certain degree of quality within the community as the experienced traders could offer good advice to improve the community.

WHAT SETTING DO YOU PLAY				
		Frequency	Percent	Cumulative Percent
Valid	CASUAL	93	86.9	86.9
	COMPETITIVE	14	13.1	100
	Total	107	100	

Table 10: Play setting and environment
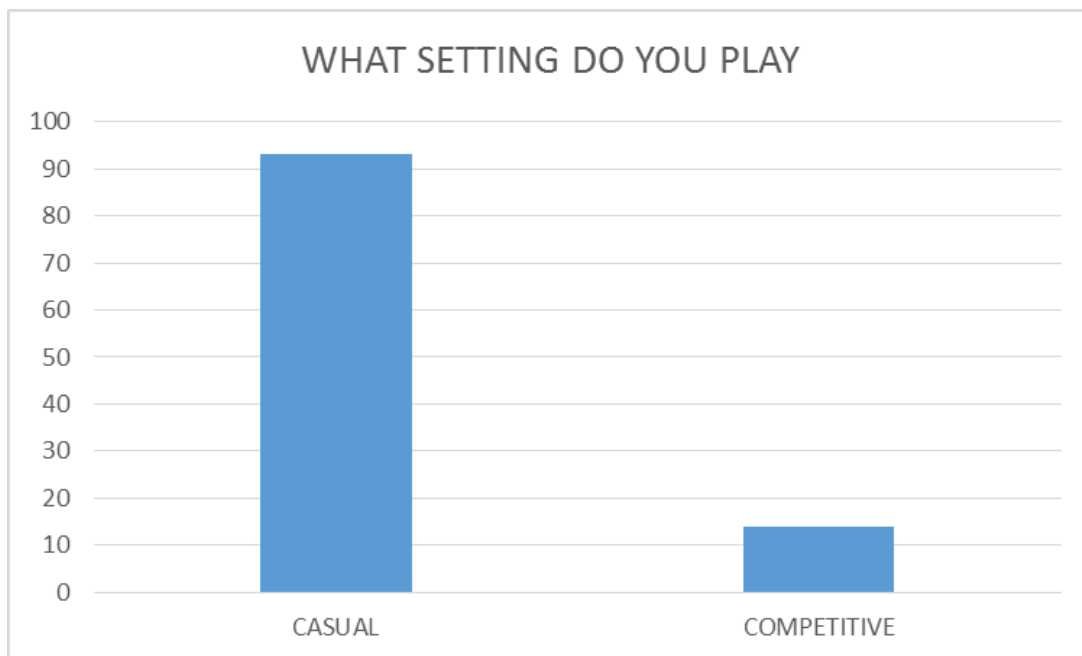
Graph 10: play setting and environment

In terms of playing the game, it is noted that the respondents (about 87 percent) prefer a casual environment of play, where they play with friends and for fun purposes. The remainder of the respondents opt for a competitive play (about 13 percent). This is seen to be an indication that while players may enjoy competition in a tournament

setting, they do enjoy the casual play environment as well. The reason for a casual play is that it allows players to enjoy the interaction with friends as well as learning something new or improving their deck builds. This is not to say that competitive play is not important, as there are respondents who prefer the idea of competition. There are also players who participate in competitive tournaments in spite of the casual play. This is because competitive play allows one to gauge the strength and can also be used as to improve one's gameplay. This simply means that tournament setting allows you to learn to improve on what mistakes not to make, as opposed to casual gameplay where take-backs are allowed.

NO OF DECKS OWNED				
		Frequency	Percent	Cumulative Percent
Valid	0	2	1.9	1.9
	1	18	16.8	18.7
	2	13	12.1	37.4
	3	14	13.1	50.5
	4	11	10.3	60.7
	5	14	13.1	73.8
	6	6	5.6	79.4
	7	4	3.7	83.2
	8	7	6.5	89.7
	10	4	3.7	22.4
	13	1	0.9	23.4
	14	1	0.9	24.3
	15	1	0.9	25.2
	MORE THAN 10	7	6.5	96.3
	UNDISCLOSED	4	3.7	100
	Total	107	100	

Table 11: No. of Decks owned
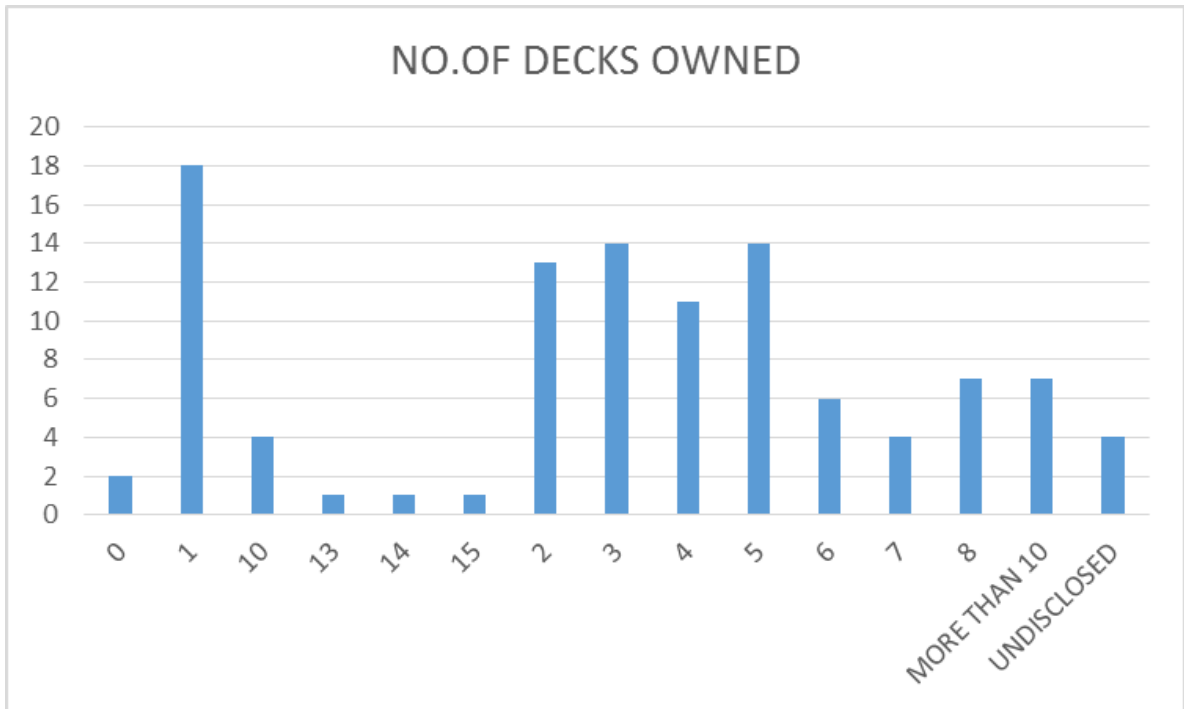
Graph 11: No. of Decks owned

The study on the amount of decks owned by the respondents also indicated that players have only one deck to play (about 17 percent). About 49 percent of the players have about 2 to 5 decks. 16 percent of the respondents have about 6-8 decks. 6.5 percent have more than 10 decks, not including the respondents who gave exact figure. There are also people who chose not to disclose their amount of decks as well. Because of the diverse figure, it can be summarized that players do sometimes have more than one deck for them to play. Players who have one deck are those who prefer a single strategy, while players who have more than 1 do so because they enjoy playing with different strategies. With this said, the amount of decks owned may seem to indicate that players are preferring a variety of gameplays because of the diverse nature of the game. This means that they could have decks based on different clans or, decks that have different gameplay that is of the same clan as to provide them with better gameplay experience.

HOW MUCH DO YOU SPEND A MONTH				
		Frequency	Percent	Cumulative Percent
Valid	1 TO 100	36	33.6	33.6
	101 TO 200	26	24.3	57.9
	201 TO 300	25	23.4	81.3
	301 TO 400	4	3.7	85
	401 TO 500	16	15	100
	Total	107	100	

Table 12: Monthly spending
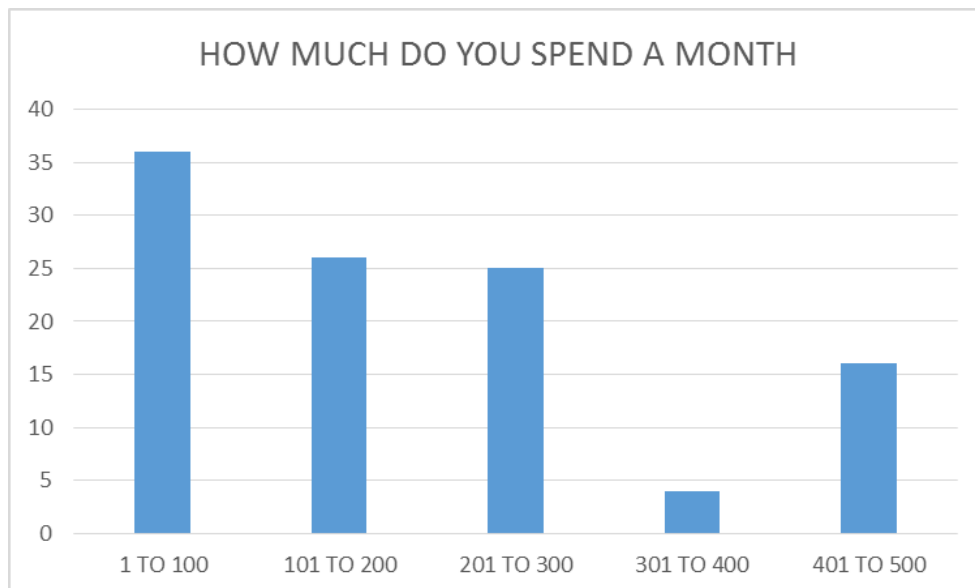
Graph 12: Monthly spending

The amount of spending incurred by the respondents seem to indicate that there is a majority of players who are spending RM1-RM100 monthly (about 34 percent), followed by RM101-RM200 (24 percent) and RM201- RM300 (23 percent). This means that the majority of players will not have a budget that would exceed that amount and that players will usually plan ahead on what they wanted to purchase. Surprisingly, there are players who monthly spending on cards who is RM400-500. This may mean that they have work part- time, being employed and self- employed in order for them to afford the payment of the cards. Additionally, the amount spent monthly may indicate that such respondents participates in box shares for sets that are released. This allows them to get specific cards without having the need to open up packs that are more risky. Another sign pointed by this expenditure is possibly due to the need to purchase max rarity cards, or cards that extremely rare and thus, the spending.

WHERE DO YOU PURCHASE CARDS				
		Frequency	Percent	Cumulative Percent
Valid	ONLINE SHOPS	8	7.5	7.5
	CARD SHOPS	30	28	35.5
	FRIENDS	69	64.5	100
	Total	107	100	

Table 13: Source of purchase
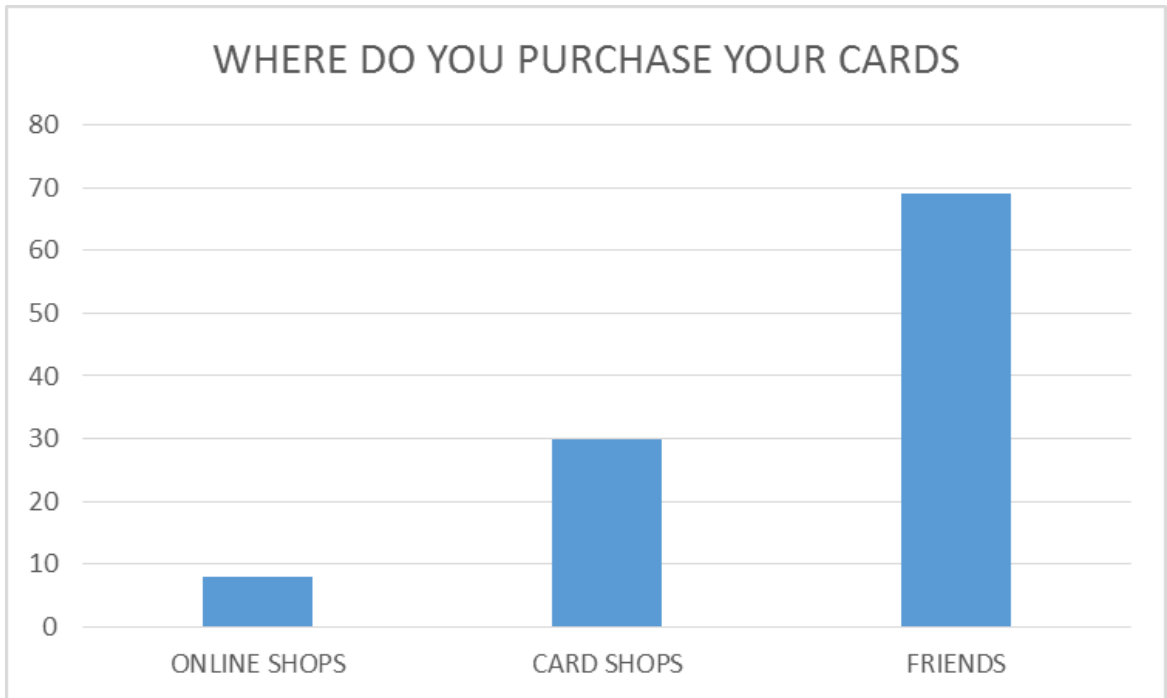
Graph 13: source of purchase

In terms of purchasing source, it is noted that the majority of the players purchase their singles from friends (about 65 percent). There are those who purchased from the shops (28 percent) and there are those who purchased from online sites (7.5 percent). Thus, from the result, it is seen that the local market is still an affluent place where players made purchase, as purchases from friends can only occur when players themselves obtain the singles through purchasing booster packs from shops. Purchases from shops as well is also an alternative based on the study, but not as much as from friends and this is due to the pricing of the singles. Shop prices are inclusive of shop overheads and as such, will usually be pricier. A player with limited funding will therefore seek a cheaper purchase price and hence the option of buying from a friend.

HOW OFTEN DO YOU PURCHASE				
		Frequency	Percent	Cumulative Percent
Valid	DAILY	2	1.9	1.9
	WEEKLY	15	14	15.9
	MONTHLY	44	41.1	57
	LESS THAN ONCE A MONTH	41	38.3	95.3
	NONE	5	4.7	100
	Total	107	100	

Table 14: frequency of purchase
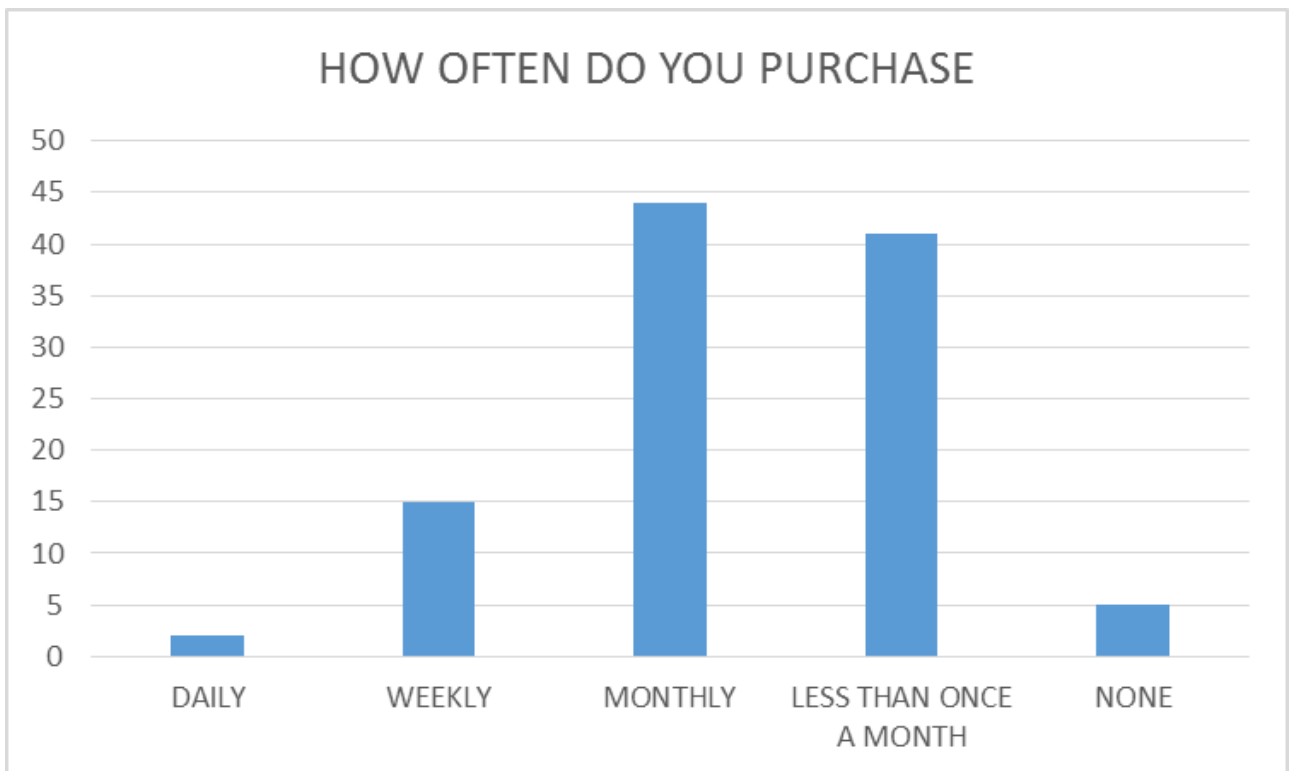
Graph 14: frequency of purchase

The purchasing frequency of the respondents also indicated that players will make purchases on a weekly, monthly and less than once a month frequency as the 3 categories total up to 79 percent of the overall response. This means that players may make purchases frequently in order to keep themselves updated and decks update or to add to their collection of cards. Regardless of purchase motive, the frequency of

purchases may indicate that players are willing to spend on stuff that fancies them or whenever their relevant support comes out. This is a good sign as there is frequent product releases by the game developer and because of this, players and game developers are said to be in a win-win situation as it means new stuff for players and increase profit for the developers.

HOURS SPENT IN GAME PER WEEK				
		Frequency	Percent	Cumulative Percent
Valid	1 TO 5	64	59.8	59.8
	6 TO 10	28	26.2	86
	11 TO 20	7	6.5	92.5
	MORE THAN 20	8	7.5	100
	Total	107	100	

Table 15: Hours spent in game per week
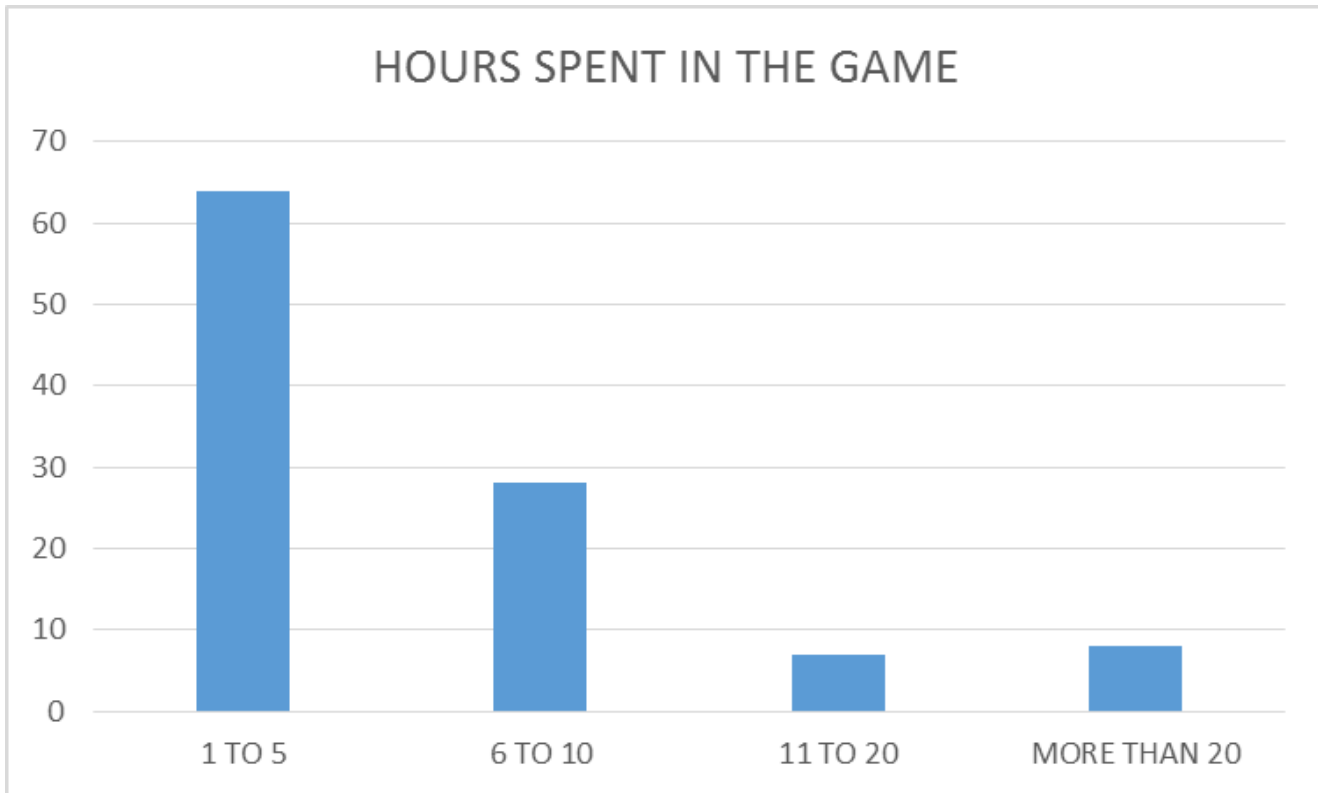
Graph 15: Hours spent in game per week

In terms of hours spent per week, the respondents indicated that about 60 percent of them spend -5 hours of playing the game per week, followed by 6-10 hours (about 26 percent). This indicates that the majority of the respondents are playing the game for about half a day per week. This is attributable to the fact that the majority of the respondents usually goes to shops during peak hours on weekends, playing with friends or competing in a tournament. Because of the commitments in life, weekends are usually the time for players who are free and could gather around just to meet up and play. If one were to look at card shops, there is a weekend boom as the players come in and have fun for the day, and thus, giving explanation as to why the amount spend in playing the game.

AT WHAT LEVEL DOES THE CARD LOOK EXPENSIVE				
		Frequency	Percent	Cumulative Percent
Valid	NONE	15	14	14
	5 TO 10	4	3.7	17.8
	11 TO 20	5	4.7	22.4
	21 TO 30	18	16.8	39.3
	MORE THAN 31	65	60.7	100
	Total	107	100	

Table 16: level of price is considered to be expensive

When queried on the level of which cards are labeled expensive, it is noted that the majority of the players perceived that anything above RM31 is considered to be expensive. This is an indication that unless there is a proper justification of the pricing that is known by parties in the trade, it will be considered as expensive and players will shun away from the card. Having said that, if the cards are justifiable, players are willing to spend, as indicated from their spending behavior in monthly spending. Thus, this level of indication will mean that overpricing singles is not a good strategy but rather rational pricing of the single is a viable one.

DO YOU CHECK INFO BEFORE PURCHASE				
		Frequency	Percent	Cumulative Percent
Valid	YES	99	92.5	92.5
	NO	8	7.5	100.0
	Total	107	100.0	

Table 17: Information checking before purchase
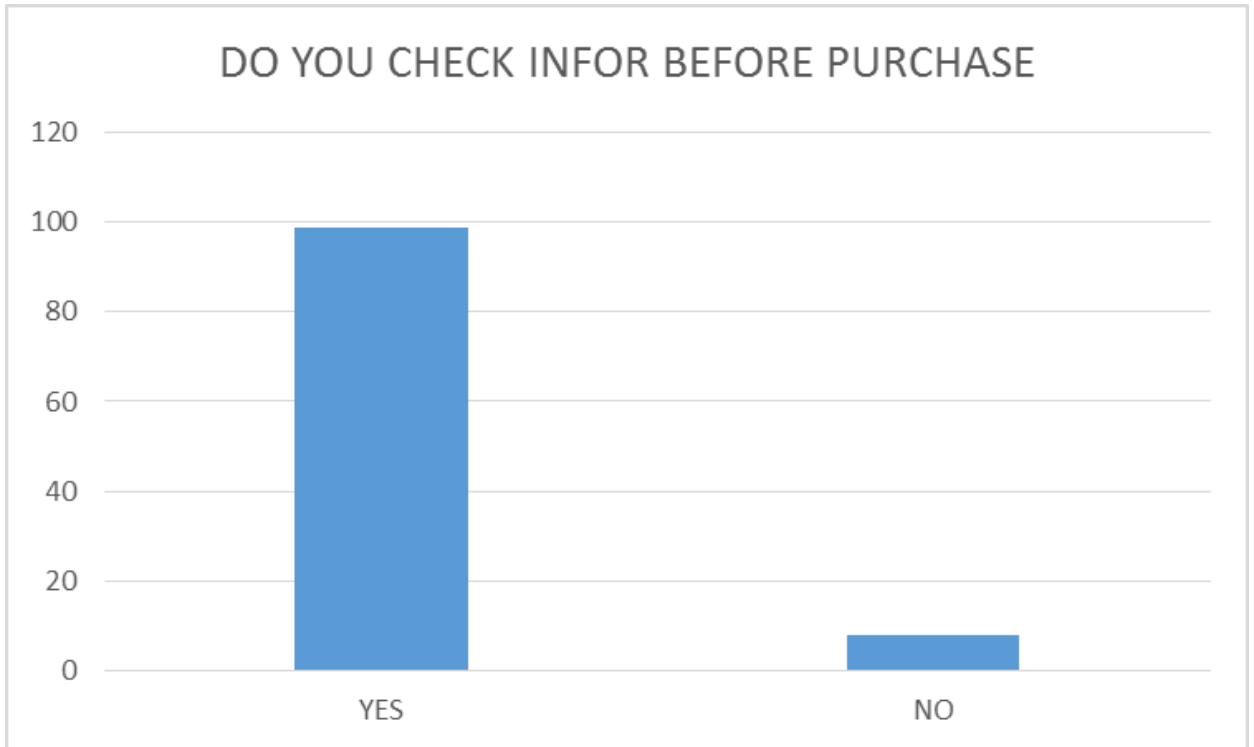
Graph 16: Information checking before purchase

The notion of rational pricing is further supported here in the survey as the survey noted that 93 percent of the respondents do look for information before purchasing a specific card. By information, this means that players will look for the price, the effect as well as any alternatives that are within the card pool before deciding a purchase. This is another good sign as it indicates that the community is one that relies on information to make decision as opposed to randomly setting up a price. This being said, the survey also noted that there are people who do not look for information before purchase, and would rationalize this as impulsive purchase, and more so on the cards that are available for cheap.

WHAT FEATURES ATTRACT YOU MOST				
		Frequency	Percent	Cumulative Percent
Valid	GAMEPLAY	57	53.3	53.3
	SIMPLE RULES	10	9.3	62.6
	COMMUNITY	18	16.8	79.4
	ANIME	22	20.6	100
		Total	107	100

Table 18: Features attracting the players
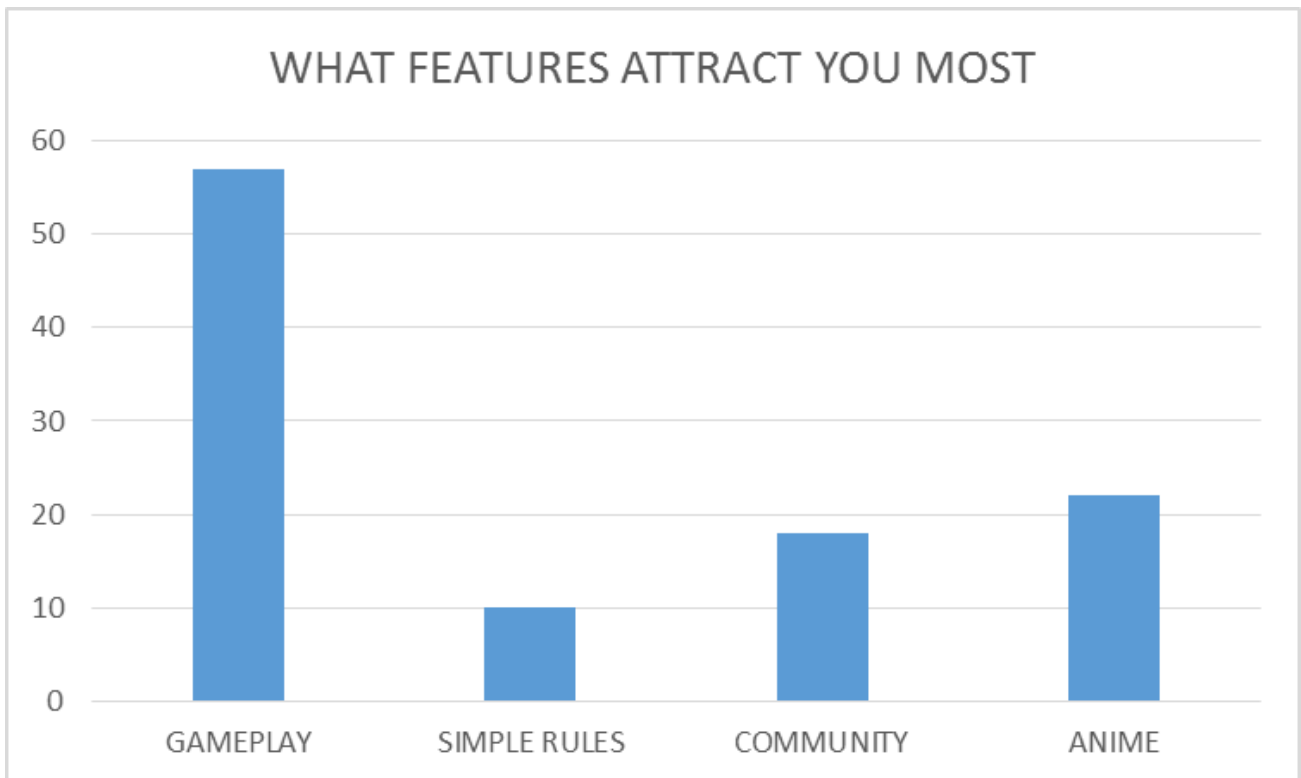
Graph 17: features attracting the players

The last aspect of the player demographic study is on what attracts players most in the game. From the survey, it is noted that the majority of the respondents are citing interesting gameplay as a reason of attracting them to play (about 53 percent). This is because the interaction mechanics as well as the gameplays that currently exist in the

game is diverse (outside the competitive play). Another interesting feature that draws player to the game is the anime itself (about 20 percent). Thus, it can be seen that the anime and the game play experience is what attracts the players to play the game.

4.3 Correlation analysis

Basing on the questionnaire, all the constructs are measured and will be tested for reliability before doing the correlation analysis. And, any constructs that are inconsistent and not reliable will be removed. Based on the questionnaire, there are 30 constructs based on the study but few were removed due to the inconsistencies, leaving only with 26 relevant constructs.

Section	Factor	Cronbach Alpha	No of items
A	Illustration	0.75	6
B	Hype of future support	0.788	5
C	Effectiveness in play	0.842	3
D	Rarity of a card	0.658	5
E	Community influence	0.712	4
F	Pricing	0.752	3

Table 19: Cronbach Alpha results

From the analysis of Cronbach Alpha, which is used to indicate adequacy, the study noted that all the factors in study indicated the sufficient amount of Cronbach Alpha more than 0.6. Illustration had a value of 0.75, Hype of future support had a value of 0.788, Effectiveness in play had a value of 0.842; Rarity of a card had a value of 0.658; Community influence had a value of 0.712 and Pricing had a value of 0.752. All these figures indicated that there is reliability in the scale of construct made to assess the correlation between factors. One thing to note is that while the general indicator of

good reliability is at 0.8, reasonable reliability in 0.7 and acceptable reliability in 0.6 (Leech, Barrett and Morgan, 2011) and as such, the values of the study fulfilled the requirements for the reliability test. Refer to the table at the back for the list of constructs as well as the Cronbach Alpha values.

Correlation analysis

After satisfying the level of reliability, the Pearson Correlation Coefficient test was run on the constructs as to assess the level of relationship between the factors and price. Please noted that the following is referred as the factors:

Section	Factor	Correlation with section F	Sig. (2-tailed)	N	Mean	Standard deviation	Significant?
A	Illustration	0.321	0.001	107	3.5312	0.72146	Yes
B	Hype of future support	0.188	0.053	107	2.871	0.861	No
C	Effectiveness in play	0.452	0.000	107	3.9907	0.77495	Yes
D	Rarity of a card	0.437	0.000	107	3.5084	0.68033	Yes
E	Community influence	0.326	0.001	107	3.4393	0.84315	Yes

Table 20: Correlation results for hypothesis

H1: There is a positive relationship between the illustration and the price of a card.

A correlation analysis was done on pricing and Illustration, and it is noted that the results were $r(107) = 0.321$. $p = 0.001$. Basing on the result, we can see that there is a positive weak relationship between pricing and illustration and that the results are significant.

Based on the result, the hypothesis is supported as the results indicated a positive relationship that is significant at 1%. The correlation of 0.321 indicated a weak but positive relationship towards price and illustration. Basing on result, better illustration may lead to higher pricing, consistent with what was spotted in the community observations. This means that players are willing to pay for a pretty card and the notion of "waifus" is present in the game.

H2: There is a positive relationship between hype of future support and the price of a card.

A correlation analysis was done on pricing and Hype of future support, and it is noted that the results were r (107) = 0.188. p= 0.053. Basing on the result, we can see that there is a positive weak relationship between pricing and hype of future support and that the results are not significant.

Based on the result, the hypothesis is not supported even though the results indicated a positive relationship at 1% significant level. The correlation of 0.188 indicated a weak but positive relationship towards price and hype of future support. Basing on result, it does seem to say that players will not value cards based on the hype on future support, meaning to say that they would have knowledge or experience to ensure that purchased cards are not irrationally priced

H3: There is a positive relationship between effectiveness in gameplay and the price of a card.

A correlation analysis was done on pricing and Effectiveness in play, and it is noted that the results were r (107) = 0.452. p= 0.000. Basing on the result, we can see that there is a positive weak relationship between pricing and effectiveness in play and that

the results are significant. It has to be noted that the score of 0.452 is the highest correlation among all the factors studied.

Based on the result, the hypothesis is supported as the results indicated a positive relationship that is significant at 1%. The correlation of 0.452 indicated a weak but positive relationship towards price and effectiveness in gameplay. Therefore, cards that offer more advantage will be having a higher pricing, and this is consistent with the community observations and several of the case studies. As such, this is a key point for developers to take note of as well. Interestingly, this is the highest factor correlation noted among the study.

H4: There is a positive relationship between rarity and the price of a card.

A correlation analysis was done on pricing and rarity of a card, and it is noted that the results were r (107) = 0.437. p= 0.000. Basing on the result, we can see that there is a positive weak relationship between pricing and rarity of the card and that the results are significant.

Based on the result, the hypothesis is supported as the results indicated a positive relationship that is significant at 1%. The correlation of 0.437 indicated a weak but positive relationship towards price and rarity of a card. Basing on result, cards that rare will be having a higher pricing, and this is consistent with the community observations and Ham (2010)'s study. This means that rare cards will be priced higher and players will need to plan well to purchase desired rare cards as it will not be cheap, depending on the rarity.

H5: There is a positive relationship between community influence and the price of a card.

A correlation analysis was done on pricing and Community influence, and it is noted that the results were r (107) = 0.326. p= 0.001. Basing on the result, we can see that there is a positive weak relationship between pricing and community influence and that the results are significant.

Based on the result, the hypothesis is supported as the results indicated a positive relationship that is significant at 1%. The correlation of 0.326 indicated a weak but positive relationship towards price and community influence. Basing on result, cards having a higher pricing due to the influence from the community in its value, and this is in line with Turkay and Adinolf (2011)'s study in that community is one of the reason of purchasing cards. This means the overall community environment will affect the pricing of a card as well as the demand for a certain card as players are playing in a group, whereby opinions and social acceptance matters.

H6: There is no relationship between the factors studied and the price of a card.

This is not supported as indicated by the constructs of hypothesis H1 to H5, as all the factors have relationship with not just only one another but also with price. Thus, the notion of none of the factors will affect the price is false, which seem to tally with both the result and community observations.

H7: Of all the factors mentioned, the factor of illustration will be the most prevalent one.

This is rejected as well, as it is noted that the one that is the most prevalent is the factor of effectiveness in gameplay, with a factor of 0.452. This means that in the sample, effectiveness takes place more importantly than of illustration

	Illustration	Hype on support	Effectiveness in play	Rarity	Community	Price
Illustration	1.000	0.343**	0.420**	0.655**	0.485**	0.321**
Hype on support	0.343**	1.000	0.424**	0.497**	0.398**	0.188
Effectiveness	0.420**	0.424**	1.000	0.578**	0.269**	0.452**
Rarity	0.655**	0.497**	0.578**	1.000	0.455**	0.437**
Community	0.485**	0.398**	0.269**	0.455**	1.000	0.326**
Price	0.321**	0.188	0.452**	0.437**	0.326**	1.000

Table 21: Correlation between all variables (2 tailed, significant level 1%)

Additionally, it is noted that a correlation checking on all the factors indicated that the results as stated above, all of which showed a positive correlation among all the different factors in a two tailed test at 1% confidence level. Interestingly, it is noted that the only factor that does not have significance in the study is the correlation between price and hype on future support. A second testing was done using one tailed testing and found the relation is only significant when run through at 5%. Refer to appendix for the results of a one tailed test.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Discussion

Overall, it is seen that all the factors studied are influential to the pricing of the card except for one. Hypothesis H2 (hype on future support) is not supported. This leads to the conclusion that factors mentioned here are affecting prices of singles. Additionally, H7 was rejected as it is noted that the highest factor in the study is effectiveness in gameplay. This study also brings out the pathway for future studies in the area of TCG and at the same time, provides evidence as to answer the question that has plagued players for a long time.

Basing on the analysis result, we can see that the results from table indicated that there is a positive relationship between illustration, effectiveness in gameplay, rarity and community influence and card prices in the secondary market. In spite of the weak relationship shown here, this study managed to prove that there are such influences by the factors. This has seen similarity in those studies done by prior to this, as the study on baseball cards, the study done in Magic the Gathering, does support the notion that performance of a card affects the pricing. This result also affirmed what Ham (2010) has stated in that the rarity of the card will affect the pricing. It also affirms with what Turkay and Adinolf (2011) has mentioned in that community influences the behavior

of members and subsequently the price. In all, it seems that this TCG, just like the ones that exist prior to it, is influenced by the same factors that past research has done. Perhaps, more interestingly, is the notion that the Vanguard community itself has noted the same indications as well, as Differentfight (2016) and Team Absolution Vanguard (2016) has also pointed out the same idea time after time. So, it would mean that by understanding the observations as well as analyzing the trends will allow one to assess the factors that affect the prices of singles in any card game.

5.1.1 Discussion on illustration

Firstly, the factor of illustration. Contrary to what has been mentioned in the literature review and community observations, this factor does affect the pricing of the card but it is not to the extent that is in observation. This result can only mean that the sample does view illustration as an important factor that determines the price, but it is not the primary factor in the finalization of the price. Again, this may not be the case for communities that are having different view, as one can actually note that the Japanese market has a higher tendency to value the cards which are pretty, which is seemingly the case for Bermuda Triangle in the game. Perhaps, the logical explanation here is that Malaysian has lesser preferences for illustration, thus, the smaller correlation with price.

5.1.2 Discussion on hype of future support

One interesting thing to note is the result of hype of future support, which is not supported in the study. This is an interesting finding as in spite of the result, there has been much discussion on how hype prices are killing the market and that as with any collectibles, there are instances where the speculative bubble burst. The results shown otherwise here, is not significant. Perhaps, there is an explanation to this. In the study, it is noted that the respondents have the tendency to look at information before purchases. This may mean that they know that the card is going to expect an increase

in price and players with less knowledge will overhype them. To prevent such overhype, they could use the same information as to search for alternatives or, using the same information prior the release of the card to get them for themselves. One may also said that such trends can be observed based on the level of experience, to which most of the survey respondent has. Another reason as to how or why such behavior exist is because pricing are deviate due to the lack of information. This generally means that players will randomly set a price disregarding the market price in hopes for profit. People, realizing that such pricing is being placed, will follow the notion as it would lead to them profiting from this. This is a bad sign as it means inflation of the actual price and people will soon see their goods unable to sell due to this and thus, the bubble.

5.1.3 Discussion on effectiveness in gameplay

Another item that is worth mentioning here is the fact that effectiveness in play has the highest correlation among all the factors studied. This may seem to indicate that the respondents wanted cards that are offering more consistent performance, with little or no drawback in terms of cost. Strangely enough, this means that card developers should actually make cards that more powerful, and this will increase the sales of the card, as players here will pay for a powerful card as per result indicated. More often or not, this has been seen in numerous card games as well, like for example, Charizard in the Pokemon TCG or Blue Eyes in Yu-Gi-Oh. The same trend persist here in the game as well. However, there is a need to control the fine line between giving out stronger cards and balancing the game. Game balance is something that developers should take note of and using rarity as a means to cover for overpowered cards are a problem (Ham, 2010). Thus, the developers should consider the aspect of balance and power when developing a certain card for certain support as healthy gameplay do benefit the community and the lifespan of the game as well. Think about this, if everyone can perform an instant win in a game, would there be a reason to play the game? This will mean that players (some, at least) will enjoy the interaction of the cards, which is what

the study found; a majority of the players are attracted by the gameplay. Thus, the issue here is to create cards that are strong and yet interactive in gameplay.

5.1.4   Discussion on rarity of a card

Rarity also plays an important role in the pricing and it is all due to scarcity and demand. This has been said in Ham (2010)'s study and this study somewhat provides evidence to it. This is important as people will need to understand that the notion of a hard to find card equals to powerful card, and such strategy is going to increase the demand for the card, but not necessarily the packs' worth. Simply put, the box or expansion has little or no value other than those specifically rare cards. While this may encourage people to purchase just to get that one single card, it ends up killing the rest of the cards in that it creates not only an oversupply of those, but also, the undervalue of it. This is a double edge sword, considering that people will have incentive to purchase cheap singles, but it will hurt the sales of the expansion as people will forgo the risk of opening packs and get cheaper singles.

5.1.5   Discussion on community influence

Likewise, community influence is also seen as a factor as well. Simply put, the environment that one plays in will determine the demand for a certain key piece. Think of it like this, if let's say that your area is one where there is little variation in builds, chances are that you will not go for those lesser known cards as you would want something that matches with the level of your community. Therefore, the plays in that specific community will be rather limited and that certain play styles and opinion will influence the player.

5.2 Further discussion onto the roles played to ensure better experience

This result, if anything; shows that there is a need for the community to develop a mechanism to prevent issues such as price manipulation and over hyping stuff that deviates rational thinking. It has to be noted that while the study indicated that hype on future support is not significant, the game developers need to have this hype created. It doesn't mean that hype creation is bad, as it can be seen in both ways. Hype creation is necessary for producers to actually generate enough demand for the booster set, and as such, the distribution of the set is a thing to which game producers should really consider when launching a set. There must be a certain degree of hype creation as to ensure that products are well received, and this is the case with Vanguard as well. Sets that are not selling well tend to have a poor distribution response; which is why older sets such as BT-07 was not well received. Thus, there is a need for the developers (of any card game and not specifically Vanguard) to consider the distribution of the set. From the amount of cards to the level of support given within the set. In this respect, the recent changes made in booster packs are steps that indicate for a more value and quality support. Newer packs for Vanguard (sets GBT11 onwards) comes with 2 cards that are of R (rare) and above, indicating increased chance of getting more valuable cards. Additionally, there is also an indication that cards that are common in rarity possess skills that are more powerful. This is a good thing to note, as support quality is much more important that of support quantity; as players do expect that they get something out of the common cards as compared to ending up with pieces of cardboard that do not contribute at all.

Additionally, it has been seen that the development of newer Trial Decks in the game is also well received. Legend decks aside, the newer Trial Decks (GTD10 onwards) are filled with essentials that complement to the strategy of main unit shown in the deck. This is an improvement, considering that past Trial Decks have been lacking in such department. Additionally, the increase the amount of essential cards in a Trial Deck would mean that it is capable of performing in a more consistent way, as it increases

the odds of drawing the cards needed. Perhaps, the most well received part this is the inclusion of 4 Perfect Guards (from GTD10 onwards). Past Trial Decks faced the problem of losing out for not including such defensive cards; and thus; impeding the play. With such inclusions, it increases the playability of a Trial Deck and this is good news for players as it meant that money could be used in securing other essentials. And, it is because of this, players hype on Trial Decks are a thing and this increases sales of expansion that are related to the Trial Decks.

One of the commendable things that this game has done in preventing irrational pricing is the amount of reprints that is available. Aside from the English Edition exclusive Revival Collection, there is a certain amount of reprints that are available in each set and those reprints are related to the newer support that are within a certain set. This increases the ease of obtaining cards; particularly cards that are from an older expansion which are hard to find. However, such reprints are to be controlled (which the game developer did well in it); as over reprinting stuff will result in over-supply of a certain card in the market and players will not be motivated to buy packs as a result. This has been the case of Konami; as multiple reprints of cards have created an issue whereby prices of older cards have dropped significant due to the reprints. This is where the secondary market comes in. The conditions of the secondary market will reflect the preference and demands of the player (both in terms of pricing and quantity), and it would help the developers to understand how or what is being demanded. This information in secondary market, in addition to tournament data is useful as it will help to provide a snapshot of consumption from the players.

Aside from the roles played by the developers to help out in the situation, the community themselves too, need to play a role in preventing irrational pricing. This means that there should be a guide that assists in rational pricing as well as self-control within players. This is a rather subjective issue, as player behavior differs and it is hard to implement controls. This said, players should know about the need to have rational (and sometimes considerate) behaviors when participating in the secondary market as such behaviors will cause a ripple effect; which would damage the game's survivability in the long run. It is affirmed that TCGs are dependent on its community and thus, a

large player base is needed. Unfortunately, this cannot be done if the pricing of singles are too expensive and players are speculative and profit motivated. An irrational priced card would not only deter players from purchasing that card itself; but also the support of the said card. This causes a chain effect and will lead to players leaving the game because of the expensive pricing. While one may argue that 'the invisible hand' of economics will adjust the pricing, it is still insufficient to ensure stability as there are cases where players are not willing to budge on prices.

The players themselves should also realize that while local scene will affect the type of plays and what cards that are demanded, it is not wise to follow blindly the thoughts of community. While there is no doubt that the community provides valuable insights and gameplay strategies, there are also times whereby information provided could be misleading and such over- reliance of it would mean that irrational behavior will occur. This is a trap as irrational behavior will then reflect on the demand (and subsequently the price) of a card. Thus, the notion of bandwagon into a certain deck because it is the "in thing" should be avoided. This creates additional demand and opportunities for speculators in the secondary market, but is causing a problem for the player base as there will be a trend of players disposing the deck after the thoughts of the community changes to a newer set and stronger cards. Likewise, there is also the notion that essential cards that are for a deck are a must have in maxed out copies. This, is valid in that it promotes consistency and improves chance of winning; but, it is because of the said notion that players would pay to get that advantage. This is one of the issues here as the demand will be consistent as long as it is still effective in winning. Perhaps, the notion of playing to win is something to be considered in this game; as it seems to point to player's motive in winning; rather than having fun.

Another issue related to this is that there is lack of innovative plays in players as a result of that. From what is noted, tournament results tend to indicate that decks are almost the same build and this is bad as it narrows the playability of the game; assuming the motive is winning. The lack of diversity will further create a separation of players and turns the game into a boring one and this harms the gaming environment. That is not to say that innovation is not present in the game, as the changing of tournament

performing decks is an indication that there is innovation to beat the top tiers, but not only a general play level. Thus, there is a need for players to increase their levels of innovation in deck building as it will help the game in the long run, as opposed to the mentality of the "copy and paste" way of winning. Granted that in tournaments that the objective is to win; and it is not wrong to choose the path that gives the highest odds of winning, there is a need to promote creativity in winning as well. This, maybe in cases of casual plays where, playing for fun is the main objective. Perhaps the community should also put consideration into such areas.

The importance of community is another thing that needs to be discussed as well. Given that TCGs are interactive in nature, having a community that has a diverse range of players help in improving the game experience. This allows the learning of the various technical plays that a player normally would not have by just playing in tournament. This is also important as it allows additional inputs in terms of advice; which would benefit the game. Communities are a source of knowledge, resources as well as gameplay experience, therefore, having a community that has diversity is a thing, particularly in the local scene where everyone get together and partake in activities. Of course, this does not need to be a physical as there could also be groups that are having online presence, so long as there is a place of interaction that allows gameplay experience to grow. The development of a community is an important part as such gameplay experience allows for people to develop, introduce as well as interact with others. Sadly, there are cases where such group are ineffective because of differences in behavior. Therefore, there is a need for players to not only play an active role in communities that they are involved with, but also, the need to have a diverse community in order to ensure good gameplay experience.

Likewise, the importance of local shops has to be noted in the development of the game as well, as shops are a gathering place where players interact with one another. This means that the shops themselves must be in a conducive manner that allows for better player interaction experience. Spacious place and adequate lighting is a must, but other important factors such as tournament support, timely product releases as well as good customer services are some of the items that encourages the development of the shop,

which, in turn, creates the player base for the local community to develop. As such, there is a part to be played by the local shops that are more than just a place to buy cards.

5.3   Other findings

Surprisingly, there are several interesting findings from the correlation analysis that, although is not noted in the hypothesis testing, somewhat supported the findings in the community. Basing on Table 21 (page 72), it is noted that the correlation between rarity of a card and illustration. This means that players do see cards that are rare will have a better illustration. And, this seem to be the case as illustrations that are used in the art of the box are usually enticing and are of a higher rarity as to encourage purchases. Additionally, the notion of rarity and effectiveness correlate with one another is also seen here as the correlation value of 0.578. This means that players do noted of cards that are rare will usually have a higher effectiveness. This, again, solidified the notion of suitcase players and rarity as a means to control access to overpowered cards in Ham (2010)'s study, which is also seen here as well. Perhaps, one simple way of putting it is the case of Chronodragon Nextage as mentioned in previous section. This card is not only rare, but also provides great gameplay effectiveness, thus, making this a support to the correlation above. Thus it can be seen that the results seem to reflect several of the observations.

5.4 Limitations of the study

As with all other studies, this study is not without its limitations, which can be summarized in the points below:

1.   The issue of card condition is controlled in the study and is not assessed, as it is mentioned prior in the assumptions made as well as previous studies; the condition of a card is considered to be good and playable. While this may help to increase the

stability of results, other studies have noted that card conditions do affect pricing to a degree. The exclusion of such factor seemed biased as it is what the collectors are looking for. However, it has to be noted that previous studies done have also acknowledge the issue but have not done studies in it. This is a limitation as the condition of a card severely affect the value and this is not covered. But, the idea of card condition is a problem in the game as well, as there has not been any credible organization that helps out in measuring the condition of the card. The nearest possible organization is PSA, which evaluates baseball cards and collectibles but they do not necessarily include TCGs. The evaluation yet again, could also mean increased cost and time to the players, which is a hassle when it comes to dealing on a local scene. Due to reasons above, the exclusion of card condition is a rationale act as players themselves do not have access to PSA grading and it is not affluent in the local community. However, this is not to say that players do not inspect card condition during trades or purchases, but rather, they have a much more lenient approach to it and thus, the condition of the card is not really that important.

2.   The issue of price as reflective of the demand is also a limitation as well. While this study has mentioned that price is a way to exhibit the value of the factors, sometimes price of a card is ignored in a trade. Simply put, there are players who are willing to forsake the price tag of a card and proceed to deal with another party who offers a card that is not of a matching value. For example, if a player know that the price of a rare card is at around MYR5, it would make sense that he would sell it at that price or trade stuffs that are worth the price. But, he could also make a trade for a number of commons that are below the price level. This is the issue here, if price is reflective of the value, why would the player go for the common cards that are worth less? Thus, it can be said that prices do reflect value of a card but only if it is not influenced by other emotional or behavioral attributes. Take on the same case, perhaps, the said player is doing a favor to a new player or that the player needs those said common cards. In that case, the value of the commons will be much higher than of the rare card; but not necessarily the price as the common could be abundant in the market

and that they player could save trouble by trading it instead of buying in the market. Thus, there is a need to assess the situation prior to evaluating if the price is suitable in the trade as both parties are willing parties to trade, so there is mutual agreement and should not be discarded as taking advantage of someone.

5.5 Future studies.

Given what has been discussed in the research, the investigation on the factors affecting the prices of a single card opens up some possible areas of future study with regards to TCG, like:

1.   The development of a framework that allows for price formulation and price forecasting based on the factors said. This may include the study of works mentioned in the literature review section and combine them into a formula or an equation that fits into the context of the card being studied. However, it has to be noted that such an equation may be a bit difficult as there has not been a classification of card types in the game. While some TCGs do have classification via sets and possibly other attributes, the classification does not necessarily affect all the cards that are of that attribute, thus, there is a need to check on the classification of the cards and group them prior to offering them as an item to be studied. Likewise, there are also complexities in terms of the rarity classification as there are times where common cards could be more expensive than a rare card, thus, there is a need for future research to quantify such classification as to ensure that a formula can be developed into providing fair pricing.

2.   Perhaps, a future study could include improvisation and adaption of the said framework to other TCGs that are in the market. Granted that the factors are formulated based on a specific game, but it is able to be adapted into other games which are similar in nature, but only with additional factors that is not covered by the game. Apart from that, future studies could go in depth on the aspect of specific singles or in a specified area of a card to which plays an important role in determining the price.

3.   Additionally, the aspect of Augmented Reality and the adoption rate in TCG could be studied as to examine for their impact onto the physical copy of TCG. Likewise, the comparison of factors affecting the prices of cards could be adopted to study for behaviors and understand how those games work in the perspective of a player.

5.6 Conclusion

Overall, the study has not only provided some insight as to allow players to understand the factors that affect the prices of singles in the secondary market, but also gives a picture as to the demographics of the players for non-players, developers as well as the community itself for better understanding. Such a role is important for all as mutual understanding is the way for people to ensure that the perception towards TCG remains positive as a hobby that all can enjoy and not just the niche product that it is assumed as. The study also affirms finding that are existent in both academic as well as practical observation. This is a good thing to note of as it does indicate that the community is one that has knowledge and this will help to increase the play experience as fair pricing allows for people to gain access to cards.

Additionally, the study also pointed out ways as to improve the community as suggested. Proper community allows the game to grow and creates a mutually beneficial relationship between all the stakeholders in the TCG world, be it from shops to game developers. A sound advice here is that players themselves need to take the right step as to allow for things to happen. Perhaps this can only be done through proper education and interaction with a knowledgeable group; but in the end, it solely depends on the players themselves as to what outcome they desire. Therefore, there must be an environment that allows such experience to be imparted, which again, falls under the hands of players. Final note here is that in order for the community to become better as a whole, the players themselves must be the instrument of change and inspire

good behavior in both trading and playing the game as to ensure that quality growth is achieved.

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APPENDIX

1. Constructs used.

2. One tailed test for Correlation

3. Approval for Ethical Clearance to Involve Human Subject in Research

4. Sample of survey Questionnaire

I like cards because they are beautiful	Section A
Cards are among the prettiest things I can collect	
I don't buy cards just because the cards are beautiful objects	
Cards will make my collection or deck more beautiful	
Cards are delicate and fascinating	
Cards can help to enhance the appearance of my deck	
Buying cards is a financial investment	Section B
The good thing about cards is that their price increases over time	
I expect to sell a card for a price greater than what I paid	
The reason I might buy a card is to make money	
Investment in other collectibles is comparable to investment in cards	
The functional performance of the card I buy is good in play	Section C
The cards I buy offers effective performance in plays	
The cards I buy offers consistent performance in play	
I think that the availability of a card is limited in the market	Section D
Cards are a rare product	
There are many offers for cards from the developers	
I can find that card being sold at many places online	
I am familiar with/ have knowledge on the current trends in the cards	
I like cards because they can link me with friends, family and others	Section E
I have improved relationship with friends by developing a common interest in cards	
To make friends with a certain group of people, I might involve myself in cards	
I would feel incomplete or lonely if I could not play card games.	
Like other products, cards should be sold at a fair price	Section F
I will not buy a card that is unfair priced even if I liked it	
Buying expensive cards are justified, but buying unreasonably priced cards is a mistake	

Table 22: Constructs used

	Illustration	Hype on support	Effectiveness in play	Rarity	Community	Price
Illustration	1.000	0.343**	0.420**	0.655**	0.485**	0.321**
Hype	0.343**	1.000	0.424**	0.497**	0.398**	0.188*
Effectiveness	0.420**	0.424**	1.000	0.578**	0.269**	0.452**
Rarity	0.655**	0.497**	0.578**	1.000	0.455**	0.437**
Community	0.485**	0.398**	0.269**	0.455**	1.000	0.326**
Price	0.321**	0.188*	0.452**	0.437**	0.326**	1.000
** Correlation is significant at the 0.01 level (1-tailed).						
* Correlation is significant at the 0.05 level (1-tailed).						

Table 23: Correlation between all variables (1 tailed)

Appendix 3

UNIVERSITI TUNKU ABDUL RAHMAN
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Re: U/SERC/60/2017

8 August 2017

Mr Tang Kin Leong
Department of Accountancy
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang
Selangor

Dear Mr Tang,

Ethical Approval For Research Project/Protocol

We refer to your application dated 26 July 2017 for ethical approval for your research project (Master student's project) and are pleased to inform you that your application has been approved under <u>expedited review</u>.

The details of your research project are as follows:

Research Title	Factors Affecting the Prices of Singles in Cardfight!! Vanguard
Investigator(s)	Mr Tang Kin Leong Loh Zhen Yu (UTAR Postgraduate Student)
Research Area	Social Sciences
Research Location	Kuala Lumpur
No of Participants	100 participants (Age: 10 - 50)
Research Costs	Self-funded
Approval Validity	8 August 2017 - 7 August 2018

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiaiity of participants' personal data must be maintained; and

(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.

The University wishes you all the best in your research.

Thank you.

Yours sincerely,

Professor Ir Dr Lee Sze Wei
Chairman
UTAR Scientific and Ethical Review Committee

c.c   Dean, Faculty of Accountancy and Management
       Director, Institute of Postgraduate Studies and Research

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:
1. The purposes for which your personal data may be used are inclusive but not limited to:-
   - For assessment of any application to UTAR
   - For processing any benefits and services
   - For communication purposes
   - For advertorial and news
   - For general administration and record purposes
   - For enhancing the value of education
   - For educational and related purposes consequential to UTAR
   - For the purpose of our corporate governance
   - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:
1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at _____.

Acknowledgment of Notice

[   ] I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

[   ] I disagree, my personal data will not be processed.

………..……………….
Name:
Date:

Survey: Factors affecting the prices of singles in Cardfight !! Vanguard

Thank you very much for participating on the survey. This research is done as a requirement for my Master in Business Administration course at University Tunku Abdul Rahman.

This questionnaire aims to study the factors that affect the prices of a single card for Cardfight!! Vanguard and is based on the players' perception on how they evaluate the factors affecting the prices of singles in the secondary market.

All data, information and results generated from this research will be used for research purpose only and the author do not own the card game and all its assets. Cardfight!! Vanguard is a proprietary right of Bushiroad Inc, and no profit is made in the process of the study.

Information collected will be kept private and confidential as per UTAR standards and this survey will only take around 10 minutes to complete. There is no right or wrong answer and sincere opinion is deeply appreciated.

The participation of the survey indicates acceptance of the privacy policy and consent to be a part of the research. Should there be any change of intentions, please contact the undersigned to indicate the withdrawal of the survey.

Loh Zhen Yu (Tel. no. : 012-2191615)

Thank you for your participation of the survey.

Survey Questionnaire

Circle where appropriate

1 Gender   Male   Female

2 Race   Chinese   Malay   Indian   Others

3 Age group   18 and below

                                       18-19

                                       20-21

                                       22-24

                                       25 and above

4 Marital status   Divorced

                                       Married

                                       Single

                                       Living with other

5 Education level   Primary

                                       Secondary

                                       College

                                       Under- graduate

                                       Post- graduate

                                       Others

6   Employment status   Student

                                         Unemployed

                                         Employed

                                         Self Employed

7   Income level   none

                                         below RM1000

                                         RM1001-2000

                                         RM2001-3000

                                         RM3001-4000

                                         RM4000 and above

8   Have you played Cardfight!! Vanguard ?   Yes   No

9   **Years of Playing the game? (please tick <u>only ONE</u>)**

    in about 1 year

    2 to 3 years

    4 to 5 years

    more than 5 years

10 What setting would you play your game? (Pick **<u>ONLY ONE</u>**)

    Casual environment whereby people are looking for a fun gameplay

    Competitive environment whereby people want to win a tournament

11 Number of decks owned

12 Experienced trading Cardfight!! Vanguard Singles?   Yes   No

(note: trading here refers to the act of buying, selling and exchange of cards)

13 How much do you usually spend in **a month** for the game?

RM   1-100

101-200

201-300

301-400

401-500

More than 501

14 Where do you purchase your cards often? (Tick **ONLY ONE**)

Online websites such as Tcgplayer.com or others

Card shops (purchasing singles or booster packs)

From friends, be it from local or online community

15 How frequent do you purchase or trade cards?

Daily

Weekly

Monthly

less than once a month

never

16 Hours spent playing this game per week?   1 to 5

6 to 10

11 to 20

more than 20

17 At what price does the cards look expensive **(<u>CHOOSE ONE ONLY</u>)**

None applicable

RM 5-10

RM 11-20

RM 21-30

RM 31 and above

18 What features attracts you to the game? **(<u>Choose one only</u>)**

The gameplay

The simplicity of the rules

The community

The influence from the anime

19 Do you check for information on cards before purchase?   Yes   No

20   Please rate the agreeability level of statements posted below, with the following indicators

1- strongly disagree   2- disagree   3- neutral   4- agreed
5- strongly agree

Section A

a1	I like cards because they are beautiful	1	2	3	4	5
a2	Cards are among the prettiest things I can collect	1	2	3	4	5
a3	I don't buy cards just because the cards are beautiful objects	1	2	3	4	5
a4	Cards will make my collection or deck more beautiful	1	2	3	4	5
a5	Cards are delicate and fascinating	1	2	3	4	5
a6	Cards can help to enhance the appearance of my deck	1	2	3	4	5

Section B

b1	Buying cards is a financial investment	1	2	3	4	5
b2	The good thing about cards is that their price increases over time	1	2	3	4	5
b3	I expect to sell a card for a price greater than what I paid	1	2	3	4	5
b4	The reason I might buy a card is to make money	1	2	3	4	5
b5	Investment in other collectibles is comparable to investment in cards	1	2	3	4	5

Section C

c1	The functional performance of the card I buy is good in play	1	2	3	4	5
c2	The cards I buy offers effective performance in plays	1	2	3	4	5
c3	The cards I buy offers consistent performance in play	1	2	3	4	5

Section D

d1	I think that the availability of a card is limited in the market	1	2	3	4	5
d2	Cards are a rare product	1	2	3	4	5
d3	There are many offers for cards from the developers	1	2	3	4	5
d4	I can find that card being sold at many places online	1	2	3	4	5
d5	I am familiar with/ have knowledge on the current trends in the cards	1	2	3	4	5

1- strongly disagree   *2- disagree*   *3- neutral*   *4- agreed*
5- strongly agree

Section E

e1	I like cards because they can link me with friends, family and others	1 2 3 4 5
e2	Collecting cards do not strengthen my relationship with friends	1 2 3 4 5
e3	I am closer to my friends because of the same interest	1 2 3 4 5
e4	I have improved relationship with friends by developing a common interest in cards	1 2 3 4 5
e5	To make friends with a certain group of people, I might involve myself in cards	1 2 3 4 5
e6	I would feel incomplete or lonely if I could not play card games.	1 2 3 4 5
e7	I will become defensive when others question me about playing Card games.	1 2 3 4 5

Section F

f1	Like other products, cards should be sold at a fair price	1 2 3 4 5
f2	I will not buy a card that is unfair priced even if I liked it	1 2 3 4 5
f3	Buying expensive cards are justified, but buying unreasonably priced cards is a mistake	1 2 3 4 5
f4	Price is not an issue when it comes to buying cards	1 2 3 4 5