A Study on Marketing Strategies of BSNL in Telecommunication Services - A Comparative Study with Private Sector Telecommunication Service Providers in Kerala.

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Part 01

Slide No. 04 to 32

The Evolution of Telecom Services and its Reflections in India

Historical Perspective

"Tomorrow the hearts of the civilized world will beat in a single pulse, and from that time forth forevermore the continental divisions of the earth will, in a measure, lose those conditions of time and distance which now mark their relations."

(Times of London : 1858, when the first trans-Atlantic telegraph cable was built from England to the United States and Queen Victoria and President Buchanan exchanged messages)

The Evolution of Telecom Services and its Reflections in India

"The Americans have need of the telephone, but we do not. We have plenty of messenger boys."

(Sir William Preece,
Chief Engineer of the British Post Office, 1876.)

- The history of modern telecommunication services originated with the invention of electrical telegraph by an American artist-turned inventor Samuel F. B. Morse in 1837.
- The British started telegraph services in India at Calcutta in the year 1850.
- In 1854 the Telegraph Act was enacted in India.
- In Kerala the telegraph offices started functioning at Trivandrum, Kollam and Alleppey in the year 1864.

The Evolution of Telecom Services and its Reflections in India…

- The revolution in the field of telecommunication started in the world with the invention of telephone by Alexander Graham Bell in 1876.
- The Oriental Telephone Company Limited of England opened telephone exchanges at Calcutta, Bombay, Madras and Ahmadabad within five years after the invention of the telephone.
- The first manual telephone exchange with 100 line capacity was installed in Kerala at Ernakulum in the year 1923.
- In 1889, Almon B. Strowger developed automatic mechanical switching system named as Strowger switching system.
- The Travancore State Telephone System maintained by the Travancore Electricity Department established the first auto exchange in Trivandrum in the year 1948.
- The Travancore State Telephone System was taken over by the Indian postal department in 1950.

The Evolution of Telecom Services and its Reflections in India…

- The electro-mechanical switching systems, (cross-bar telephone exchanges) were fairly common in the developed countries during 1950s. In Kerala the first cross-bar telephone exchange was installed at Ernakulam in the year 1968.
- In the year 1973, the first STD (subscriber trunk dialing) route in Kerala opened between Trivandrum and Kottayam.
- In 1975, the first Trunk Automatic Exchange (TAX) commissioned in Trivandrum and STD services started from Trivandrum to Delhi. In the same year, the telecommunication wing was separated from Indian postal department and Department of Telecommunications (DoT) was formed.
- In 1979 STD PCOs (Public Call Offices) opened in Kerala.

The Evolution of Telecom Services and its Reflections in India…

- Although a separate government department was formed for telecom services, the progress of telecom services sector was substantially in a very slow pace in Kerala.
- The accesses to the telephone services even through the public call offices were alien to the vast majority of general public. They depended on the telegraph service available through the post offices for their immediate long distance communication needs.
- The telegraph services were one of the major businesses of post offices at that period.

The Evolution of Telecom Services and its Reflections in India…

- The digital telephone exchanges were introduced in Kerala during the year 1985. Within a short span of ten years the digital switching systems replaced all its predecessors.
- This sudden technological change caused a crucial human resource issue in the telecom department. The manpower requirements for the management of digital telephone exchanges were very few as compared to the earlier systems. Even though the excess employees were redeployed in clerical and other cadres, the progressive computerisation further complicated this issue.
- The legacy of government setup, interventions of trade unions, legal battles related to promotions and cadre issues made human resource management still a complicated problem in DoT (Department of Telecommunications) turned BSNL (Bharat Sanchar Nigam Limited).

The Evolution of Telecom Services and its Reflections in India…

- Although the telecom revolution was took place in the world, the telephone facilities in India were confined only to the upper class of the Indian society till 1990s. Even in the late 1990s, ten year old waiting lists were existed in the telephone exchanges of Kerala to get the ordinary telephone connections.
- The telegraph services were quite popular till the introduction of subscriber's trunk dialling (STD) facility in landline telephone networks. In Kerala the STD facility in telephones became widespread in the latter part of 1990s.
- The telegraph service lost its glory with the further advancements in landline and mobile telecommunication networks. The 163-year-old telegraph services in the country were closed by July 2013.

The Evolution of Telecom Services and its Reflections in India…

- In India in late 1990s the access to internet services was introduced in landline networks in a very limited manner through dial-up modems.
- In early 2000s the broadband internet services were introduced in India. The demand for broadband is primarily conditioned and driven by the penetration of internet and personal computers. The penetration of broadband, internet and personal computers in the country was 0.02%, 0.4% and 0.8% respectively at the end of December, 2003.
- In order to accelerate the growth of broadband services, the Government of India introduced the broadband policy in 2004.

The Telecom Business Trends in India

- The broadband policy 2004, defines the broadband connectivity as an ‘always-on’ data connection that is able to support interactive services including internet access and has the capability of the minimum download speed of 256 Kilo bits per second (Kbps). to an individual subscriber from the point of presence (POP) of the service provider intending to provide broadband service where multiple such individual broadband connections are aggregated.
- The technology options to provide broadband services are optical fibre technologies, digital subscriber lines (DSL) on landline copper loop, cable television network, satellite media, and terrestrial wireless technologies.
- The broadband services through the existing landline network became a golden opportunity for landline telecom service providers.

The Telecom Business Trends in India…

- The landline subscriptions increased from 2.3 million in the year 1981 to 32.44 million in the year 2000 in India.
- The beginning of the twenty first century witnessed the world wide overwhelming growth of mobile telecom services. In the year 2002, with one billion users worldwide, mobile communications for the first time surpassed fixed-line subscribers.
- Ingo Vogelsang (2009) describes the phenomenon of FMS (Fixed to Mobile Substitution). The main explanatory factors for the increased FMS in wealthy countries seem to be the demand substitution from large price reductions in mobile relative to fixed services and demand shifts arising from network effects and the relative quality increase of mobile handsets or services. Lower or reduced switching costs may have played some role, as has the stimulating effect of the universal spread of mobile.

The Telecom Business Trends in India…

- The mobile subscriptions exceeded fixed line connections in India in the year 2004. Although the mobile connections overtook landline connections, the land line segment was growing till the year 2006 and reported a subscriber base of 41.54 million. The landline industry has been showing declining trends since 2006. The fixed phones were widely substituted by mobile phones in India due to convenience and low pricing of the fast growing mobile telecom services.
- At this declining stage of landline telephone services, the landline broadband services gave some hope to the landline telecom services sector. To an extent the broadband services provide value addition to the landline telephone services. In the wired access category, the landline broadband is the most preferred technology option as it constitutes 84.81% of total broadband subscribers.

The Telecom Business Trends in India…

- Chun-Yao Huang (2011) elaborated that people in developing countries have been able to skip landline-based telecommunication systems by directly adopting mobile phones and enjoying their convenience. Such an observation is usually labelled as leapfrogging. Relative to landlines, a mobile system is relatively cost efficient in infrastructure investment.
- Indeed, many people in developing countries benefit greatly from the relatively accessible mode of mobile telecom services. Telecom leapfrogging happens in within-country sense in which people directly jump to mobile systems without the stepping stone of landlines.

The Telecom Business Trends in India…

- The present developments in telecommunication services sector show that the leapfrogging is not only applicable to landline telephone services but also to landline broadband services. The advancements of wireless broadband services raise unpleasant signals for the landline broadband services.
- In India the broadband customer base fetched 164.81 million by March 2013. Out of this, 143.20 million customers (86.88%) belong to wireless broadband services.
- The wireless broadband services become increasingly favourable to the customers than the wired access broadband services. The upcoming mobile telecom generations will probably make the wireless broadband more and more advantageous to the customers.

The Business Role of BSNL Starts

- During the pre-liberalization regime in the country, the business of telecommunication services was fully managed under government monopoly. The whole telecom business in all regions other than Mumbai and Delhi were carried out directly by the government department, the Department of Telecommunications (DoT).
- In Mumbai and Delhi the telecom business was the monopoly of a Government owned company called MTNL (Mahanagar Telephone Nigam Limited).
- The Government of India corporatized the operations and telecom business wing of DoT on 1st October 2000 and named it as Bharat Sanchar Nigam Limited (BSNL).

The Business Role of BSNL Starts…

- The BSNL operates as a public sector enterprise. Initially BSNL concentrated only on fixed line (landline) telecom business. By the end of the year 2002, BSNL also started operating mobile communication services.
- In India by the end of March 2013, the number of the landline subscriptions came down to 30.21 million. The public sector landline telecom service providers are BSNL and MTNL. The private sector landline telecom service providers are Reliance, Bharati Airtel, Tata, Quadrant, Sistema and Vodafone.
- Even in the decline stage of the landline industry the private sector providers have substantially improved their positions.
- The BSNL is the most adversely affected service provider in the down turn of landline industry.

The Mobile Revolution Starts with Radio

- In 1895, Guglielmo Marconi transmitted wireless signals across a distance of more than a mile, an event that may consider the birth of radio.
- During the Second World War radio telephony links were utilized for military gains. Hand-held radio transceivers became available from 1940s. In the United States, engineers from Bell Labs began to work on a system to allow mobile users to place and receive telephone calls from automobiles, leading to the inauguration of mobile service on 17th June 1946 in St. Louis, Missouri, USA.

The Mobile Paging Era

- During the same period, along with mobile telephony, mobile paging services also appeared in the telecom world.
- The pager was primarily a one-way communication system that receives and displays numeric or text messages.
- One of the first practical paging services was launched in 1950 for physicians in the New York City. Physicians paid US$12 per month for the service and carried a 200 gram pager that would receive messages within 40 kilometres from a single transmitter tower.
- The system was manufactured by the *Reevesound* Company and operated by *Telanswerphone*.

The 1G Mobile Telephony

- The Motorola was the first company to produce a handheld mobile phone. On 3rd April 1973 Martin Cooper, a Motorola engineer and executive, made the first mobile telephone call from handheld subscriber equipment in front of reporters, placing a call to Dr. Joel S. Engel of Bell Labs, USA.
- The further developments in mobile telephony gave birth to the first generation (1G) mobile telecommunication services.
- The first generation mobile networks launched in early 1980s were designed with primary focus on voice communications - analog in nature - and facilitated localized wireless services.

The 1G Mobile Telephony …

- The major first generation systems were: AMPS (Advance Mobile Phone System) of United States of America, TACS (Total Access Communications System) of Europe and NMT (Nordic Mobile Telephony) of Scandinavian countries.
- The systems were known as ‘cellular systems’ because coverage areas were split into smaller areas or ‘cells’ for facilitating frequency reuse.
- Each cell is served by a Base Transceiver Station (BTS) commonly known as mobile tower.
- The use of first generation mobile telecom services was limited mainly in developed counties. The first generation services didn’t have any root in India.

The Mobile Revolution in India

- The public access mobile telecommunication services in India started with mobile radio paging services.
- India opened up Radio Paging Service in the year 1992 and awarded licenses for 27 cities and 19 Circles (States) through an open tendering process.
- The service was commercially launched in 1995. The licensed radio paging service providers in Kerala were: *BPL Wireless* (Circle paging license including cities of Ernakulam and Trivandrum), *Punwire Mobile* (Circle paging license excluding cities of Ernakulam and Trivandrum), *Telesistem* (City paging license to operate on cities of Ernakulam and Trivandrum), and *Eider PWI Com* (City paging license to operate on Trivandrum city).

The Mobile Revolution in India…

- The Government fixed ceiling for the tariff of radio paging services. The ceilings fixed on rental were Rs. 150 for both numeric and alphanumeric pagers. This ceiling has since been revised by TRAI (Telecom Regulatory Authority of India) to Rs. 175 and Rs. 300 per month for numeric and alphanumeric pagers respectively.
- It is interesting to look at the cost of pagers available at that time in India. The costs vary with functional utility of the devices such that the cost of numeric pager was of the order of Rs. 1300. The indicative prices of alpha numeric pagers were: Rs. 1500 for single line pager, Rs. 1600 for two line pager, and Rs. 2000 for four line pager. In March 2000, the pager customer base in Kerala was nearly fifteen thousand against the national figure of 7.33 lakhs.

The 2G Mobile Telephony

- The great success in continued research and developments of mobile telephony caused the worldwide commercial launch of second generation (2G) public access mobile phone services in 1990s.
- The 2G systems were digital in nature, had enhanced voice capability, better radio spectrum management, wider coverage area and better mobility.
- The prominent 2G technologies are European based GSM (Global System for Mobile Communication) technology and US based CDMA (Code Division Multiple Access) technology.
- These technologies were mainly used for mobile voice services. The 2G technologies support data services with low bit rates, ranging from 9.6 Kbps to 14.4 Kbps.

Introduction of 2G & the End of Mobile Pagers

- The second generation mobile communication services started in India in 1996. In Kerala the services started in the same year. At that time the mobile telephony was not a threat to paging services due to its luxurious nature.
- But in the subsequent years the cost of the cellular telephony was coming down very fast. The radio paging industry struggled hard to sustain. Meanwhile the pager companies targeted customers those who could not afford mobile phones but wish to remain stay connected while away from the normal workplace or home. In order to attract this segment, the radio paging service providers offered affordable communication facility, in conjunction with the availability of public call offices (PCO). But in due course the mobile telecom services became cheaper and more widely available. This caused the disruption of pager innovation.

The 2.5G

- In early 2000s the focus of wireless companies shifted to enhance data rates due to high market expectations for the same. By the year 2001, improved versions of second generation technologies such as GPRS (General Packet Radio Service), EDGE (Enhanced Data for GSM Evolution) and CDMA 2000 - 1x RTT (Radio Transmission Technology) were introduced. These technologies are commonly known as 2.5G technologies, offering data services such as voicemail, e-mail, location-based services (LBS), web surfing and other m-commerce applications with data speed of the order of 384 Kbps.
- The 2.5G mobile telecom services popularized in India from the year 2005 onwards. These services are still widely used in the country due to the barriers in the advancement of third generation (3G) technologies.

The 3G

- The third generation mobile communication systems promise faster communication services, including voice, video and data. This technology was born resulted from the vision of ITU (International Telecommunication Union).
- The ITU introduced the concept of 3G technology in the mid-1980s known as IMT-2000 (International Mobile Telecommunications -2000).
- The IMT-2000 was the result of collaboration of many entities, inside the ITU and agencies outside the ITU such as 3GPP (Third Generation Partnership Project), 3GPP2 (Third Generation Partnership Project Two), and so on.

The 3G…

- The 3GPP group was responsible for the development and growth of the UMTS (Universal Mobile Telecommunications Systems) technology. The UMTS is the evolutionary 3G system of the GSM (Global System for Mobile communication) family.
- The 3GPP2 group was responsible for the development and standardization of CDMA2000 (Code Division Multiple Access 2000) based 3G systems.
- The ITU's global standard for 3G, the IMT-2000 had opened the way for enabling innovative applications and services like multimedia entertainment, infotainment and location-based services.
- On 1st October 2001, the 3G services were commercially launched by NTT DoCoMo in Japan. According to ITU, 3G services should provide data rates of 144 Kbps for vehicular, 384 Kbps for pedestrian and 2 Mbps for indoor environment.

The 3G in India

- On 11th December 2008, India entered the 3G arena with the launch of 3G enabled mobile and data services by the government owned telecom company, Mahanagar Telephone Nigam Limited (MTNL) in Delhi and then in Mumbai.
- MTNL has become the first 3G mobile service provider in India. After MTNL, another State owned operator Bharat Sanchar Nigam Limited (BSNL) launched 3G services on 22nd February 2009 in Chennai and later launched 3G nationwide.
- The auction of 3G wireless spectrum was announced in April 2010 and 3G Spectrum allocated to private 3G service providers on 1st September 2010.

The Growth of Mobile Telephony in India

- The initial growth rate was very low in mobile segment due to varied reasons such as premium pricing of services, lower network coverage and relatively high cost of mobile handsets.
- The subsequent favourable policy matter decisions of the government, ever growing mobile communication technologies and competition among mobile service providers helped mobile telecom services industry to grow in India in a rapid manner.
- The mobile phone subscriptions enhanced from the relatively small figure of 1.88 million in March 2000 to 867.8 million in March 2013. The number of mobile telecom services providers became 13 by March 2013. The service providers and their market share are Airtel (21.69%), Vodafone (17.56%), Reliance (14.17%), Idea (14.01%), BSNL (11.66%), TATA (7.65%), Aircel (6.92%), Uninor (3.65%), Sistema (1.37%), MTNL (0.58%), Loop (0.35%), Videocon (0.23%), and Quadrant (0.16%).

The 4G

- The fourth generation mobile telecom services marketed as 4G LTE (Long Term Evolution) is a standard for wireless communication of high-speed data for mobile phones and data terminals.
- It is based on UMTS (Universal Mobile Telecommunications Systems) network technologies, increasing the capacity and speed using a different radio interface together with core network improvements. This standard is developed by the 3GPP.

The 4G

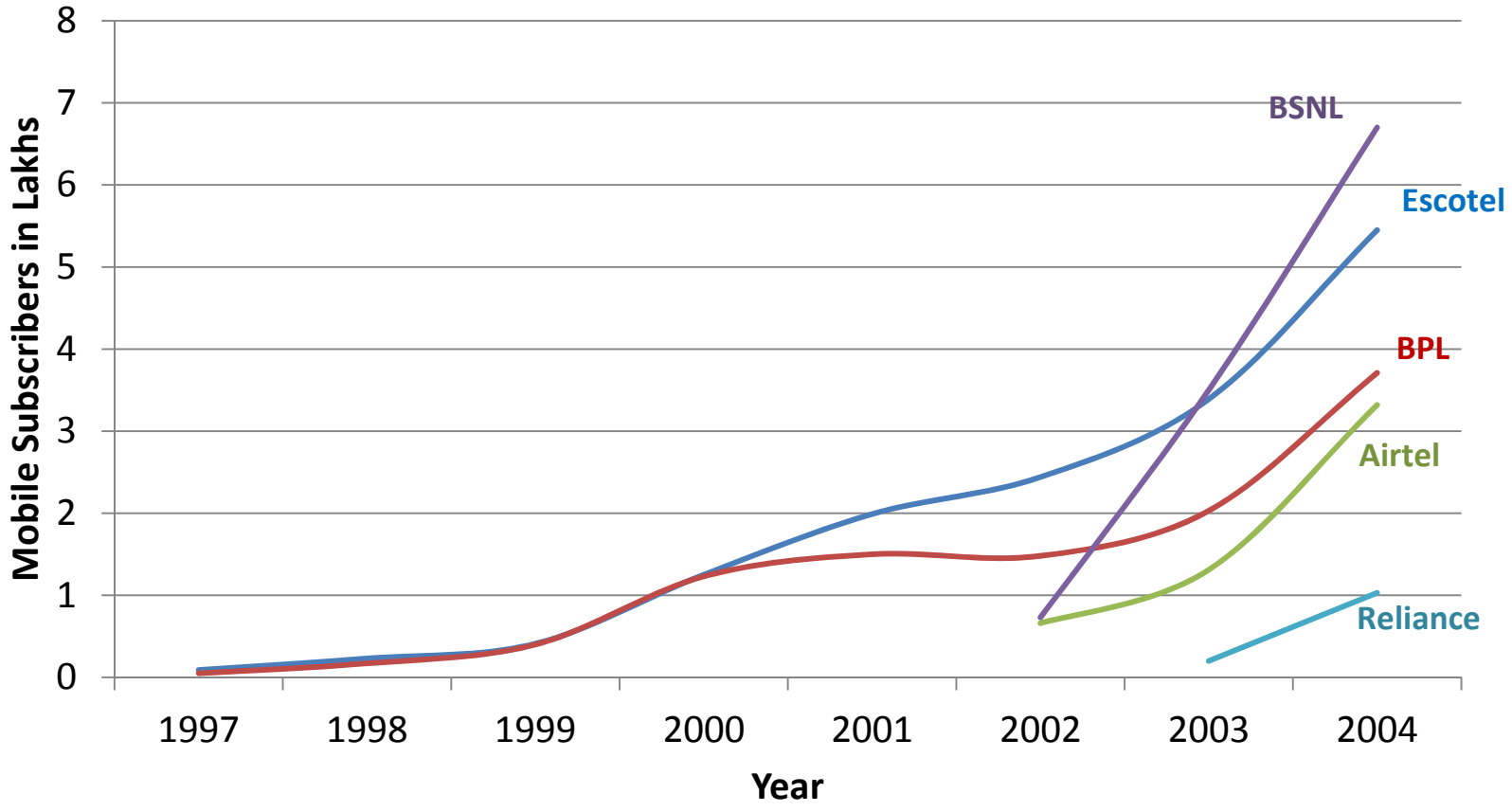
- The world's first generally available LTE service for the public was launched by the TeliaSonera AB, a dominant telephone company and mobile network operator in Sweden and Finland. The services were launched in Oslo, Norway and Stockholm, Sweden on 14th December 2009.
- Samsung introduced world's first LTE Mobile phone on September 2010. The LTE specification provides downlink peak rates of 300 Mbps and uplink peak rates of 75 Mbps. The LTE has the capacity to manage fast-moving mobiles and supports multi-cast and broadcast streams.
- In India the 4G services were introduced at Kolkata by the telecom service provider Airtel on 10th April 2012.

Part 02

Slide No. 35 to 39

The Performance of Telecom Services Industry in Kerala (1997-2013)

Performance of Mobile Service Providers in Kerala (1997 -2004)



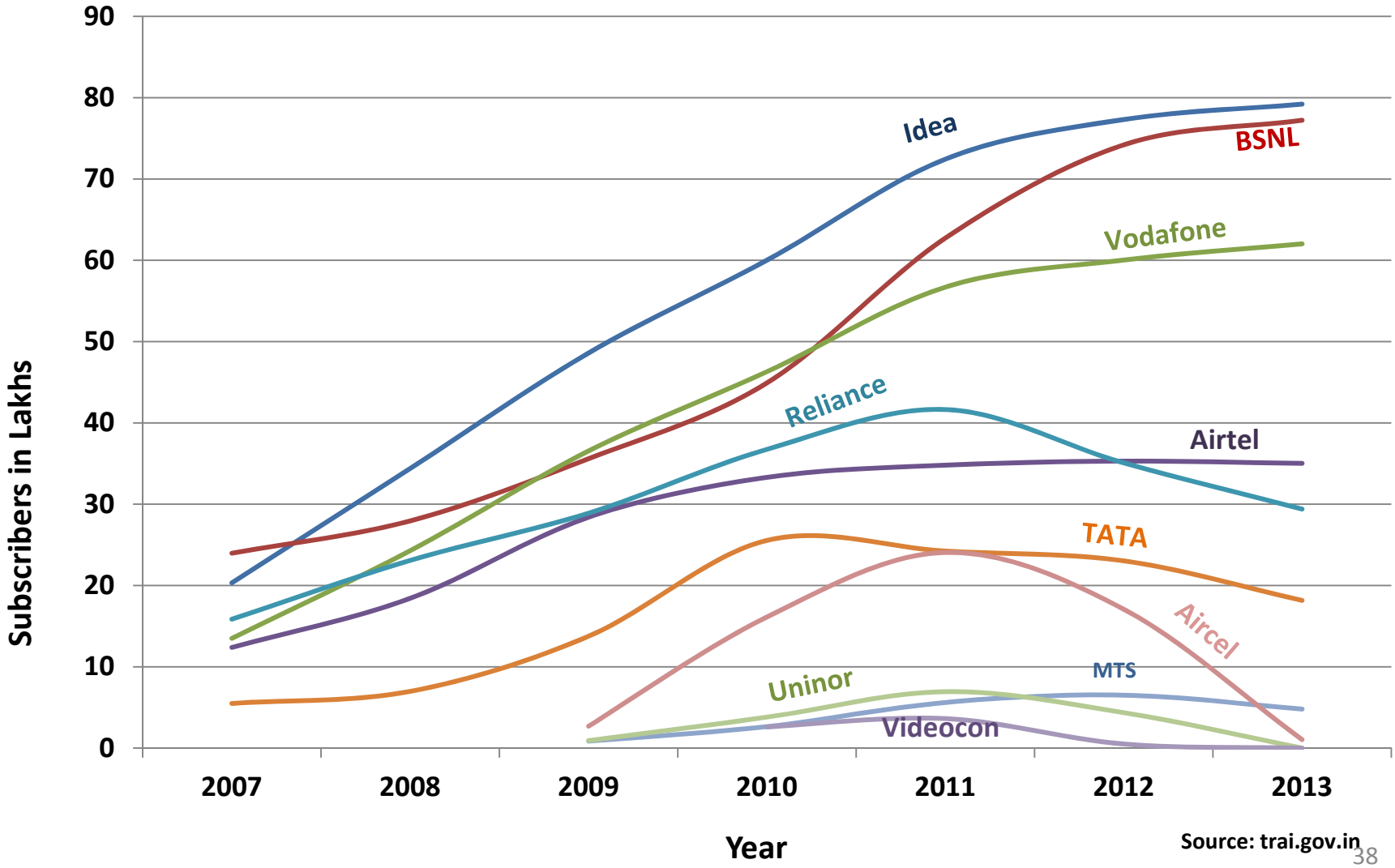
The Market Growth 2004-2007

- At the end of the year 2004, the Idea cellular bought over the telecom company Escotel.
- In the year 2005 Tata Teleservices also entered in the mobile telecom services market and the number of mobile operators became six in Kerala.
- The mobile telecom service providers in Kerala as on December 2005 with their respective subscriber base and market share were: BSNL (11.89 lakhs, 36.18%), Idea (7.66 lakhs, 23.31%), Airtel (5.17 lakhs, 15.74%), BPL (4.26 lakhs, 12.96%), Reliance (2.52 lakhs, 7.67%) and Tata (1.36 lakhs, 4.14%). The total mobile customer base became 32.86 lakhs.

The Market Growth 2004-2007…

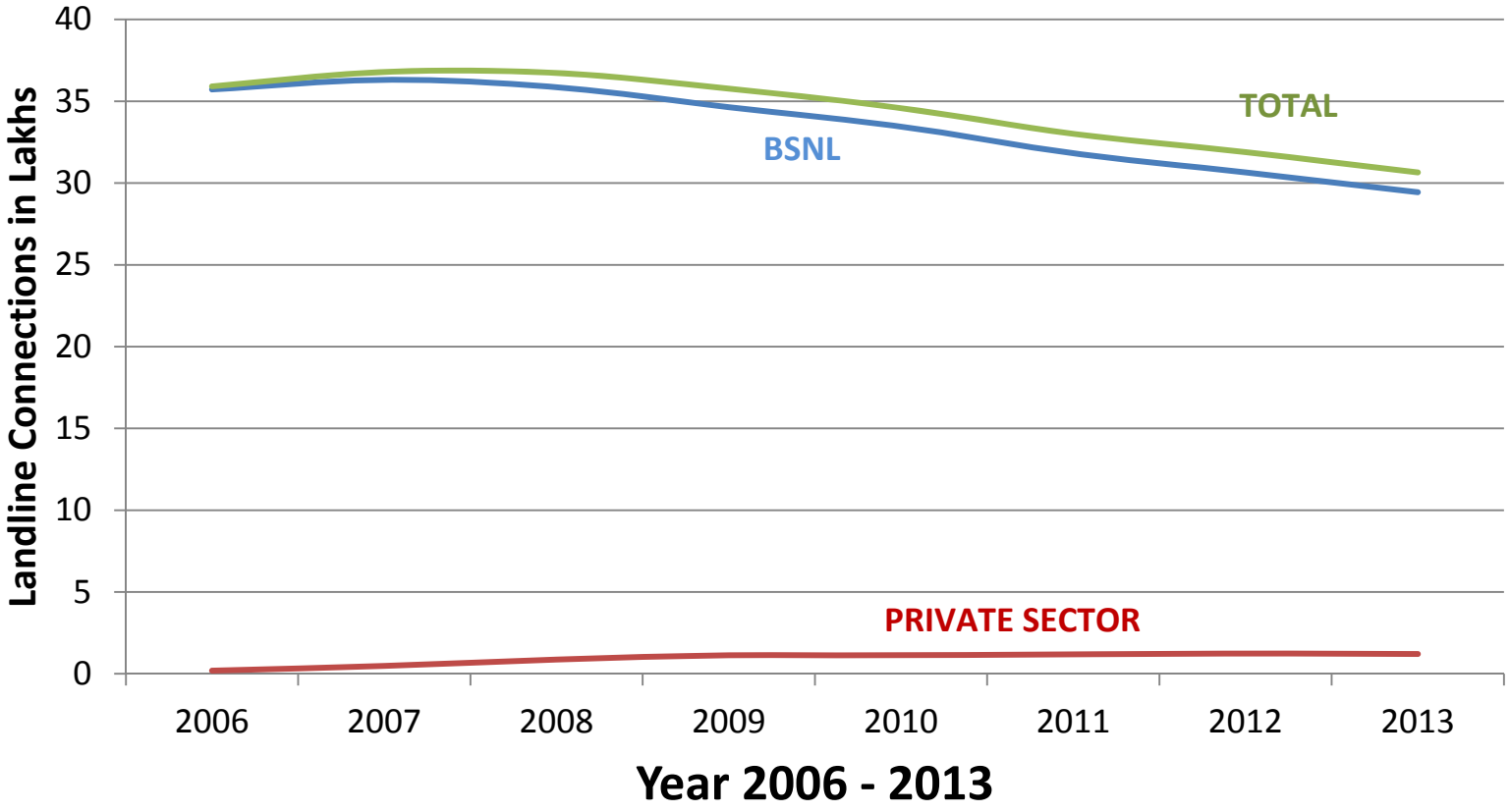
- In the year 2006, BPL was taken over by Hutchison Essar and the mobile services were branded as Hutch.
- In 2007, Hutch was taken over by Vodafone.
- The presence of multiple operators further boosted the competition in mobile telecom market of Kerala.
- The BSNL continued at the top in market share till the year 2007. The market share of BSNL was 26.19% with 23.97 lakhs of mobile connections as per the figures in August 2007.
- The Idea was at the second position with a market share of 22.21% and subscriber base of 20.33 lakhs.
- The total mobile customer base of Kerala enhanced to 91.53 lakhs.

Performance of Service Providers in Kerala (2007-2013)



Source: trai.gov.in

The Declining Trends of Landline Industry in Kerala



Source: trai.gov.in

Part 03

Slide No. 41 to 78

The Review of Marketing Strategies of Telecom Service Providers in Kerala

Marketing Strategies

"We don't care. We don't have to. We're the phone company."

Lily Tomlin

American Actress, 1976.

- The successful marketing strategies are formulated through the right combination of services marketing mix, the seven Ps, specifically product, price, place, promotion, people, physical evidence and process.
- The product strategy, pricing strategy, distribution (place) strategy, promotion strategy, people strategy, physical evidence strategy and process strategy are widely utilised by the telecom service providers to design, develop, differentiate and implement their marketing strategies.

Product Strategies

- The basic essentials of product in mobile telecom services are its core functional benefits. The key functional benefits desired by majority of the mobile telecom customers are voice clarity, geographical network coverage and easiness to get connected to the network.
- The frequent travellers outside the State consider roaming facility and the internet savvy customers consider the easiness in activation of internet services also as the core service benefits.
- In third generation (3G) services along with these characteristics, the core benefits also include easiness in handset settings for mobile internet facility and speed of data access.

Product Strategies…

- The product is lifted to the augmented level with suitable customer support and customer care activities and the maintenance of high level of quality of service.
- The customer support activities related to the mobile telecom services are: easiness to get a new mobile connection - the SIM (Subscriber Identity Module) card with friendly processes and procedures, availability of mobile service recharge facility or recharge cards at convenient locations (for prepaid customers), helpful assistance from retailers, and customer convenient bill payment facilities (for post-paid customers).
- The customer care activities are: easiness in activation of additional services, easiness in deactivation of services availed as and when required, easiness to access customer care helpline, easiness to get the right customer care person on the phone to get the required support or information, and the ability to solve problems at customer care.

Product Strategies…

- The quality of service and brand value of telecom service providers are also reflected in product related strategies.
- The five distinct dimensions of quality of service suggested by Parasuraman A. et al. (1988) are *tangibility, reliability, responsiveness, assurance* and *empathy*.
- The elements of *tangibility* are physical facilities, equipments, and appearance of personnel.
- The *reliability* is concerned with ability to perform the promised service dependably and accurately.
- The *responsiveness* is the willingness to help customers and to provide prompt service.
- The *assurance* deals with the knowledge and courtesy of employees and their ability to inspire trust and confidence in customers.
- The *empathy* is concerned with caring and individualized attention the firm provides for its customers.

Product Strategies…

- The features, benefits, quality, and the identity of the product are emerged through the brand name. The corporate image of the service provider is reflected in the brand value.
- The telecom service providers mainly segmented the customers based on demographic profiles such as age, gender, locality (Urban or Rural), educational levels, employment status and income.
- The core benefits' requirements are different for different segments, accordingly the companies positioning their products for targeting the specific segments.
- The post-paid customers are considered as premium category as they are high paying group and very less in numbers (approximately 3% of mobile customer base) as compared to prepaid customers.

Pricing Strategies

- The pricing strategy has direct impact on revenue and profit of any organisation. Even though the pricing is simply the exchange value of the product or service, the pricing strategies depend on the objectives of pricing. The objectives of pricing are different for different service providers. The objectives may be to produce fair profit, profiteering, market growth, price leadership or to enhance the image of the firm to attract more customers or to strategically counter the competitors.
- In Kerala during mid-2000s, with the presence of multiple telecom operators, the competition in the mobile market stepped up and price wars start. Pricing became the major strategy of all telecom operators.

Pricing Strategies

- Varieties of tariff plans are introduced by the telecom service providers to attract customers of multiple segments. Special Tariff Vouchers (STV) for voice, data and SMS allows customers to make calls, SMS and access internet comparatively at low-priced rates, sometimes on unlimited manner. When one operator introduces an STV, immediately others launched competitive versions.
- Xavier M. J. (2007) described copability (copying + ability) as a marketing strategy in a turbulent environment. As the patent rules and intellectual property rights are not applicable in copying a strategy introduced by one telecom service providers by others, copability became a widely utilised strategy among the telecom service providers.

Pricing Strategies

- In addition to STVs, top-up recharge cards, electronic recharge facility, credit recharge facility, validity extenders, separate and combo tariff structures for voice, data and SMS were also introduced in the market.
- Exclusive tariff plans are launched for closed user groups such as friends, lovers, family, official groups, or business groups. Customised special tariff packages for individuals were also offered by certain telecom service providers.
- In India the customers are enjoying one of the lowest mobile tariffs in the world. This is mainly due to the intense competition in pricing among mobile telecom service providers.

Distribution (Place) Strategies

- The distribution strategy is to provide effective place convenience for the customers to avail products and services of the service provider. It is related to the distribution pattern, channel management, and retailer network of the telecom service providers.
- The private sector providers mainly adopted intensive distribution strategy, which involves the use of all possible outlets to distribute the products and services.
- The public sector provider BSNL in the initial stages mainly resorted to exclusive distribution strategy, in which the outlets deal exclusively the BSNL products.

Promotion Strategies

- The effectiveness of marketing mostly depends on promotion - the integrated marketing communication.
- The telecom companies use a mix of various promotional tools such as: advertisements, sales promotion, direct selling, events, experiences and public relations.
- The prominent among them are: promotional phone calls to the customers, price reduction offers, extra talk time offers, SMS package offers, internet package offers, free trial of newly introduced services, free add-on SIM card, facility to make calls even at zero balance on credit basis for prepaid customers, extending continued services even at non-payment of bills due to delay or oversight for post-paid customers, displays and demonstrations at the point of sales, and specialized pricing offers exclusively for individual customers.

People Strategies

- The customer care personnel, maintenance staff, persons representing the organisation, the customers, and other customers in the service environment play vital roles in services marketing.
- The private telecom service provider's strategically manage the people element primarily through outsourcing. The customer care and call centre personnel are professionally trained employees provided by external agencies. The telecom service providers extend excellent backend support for the outsourced customer touch points. They utilise the IT capabilities for extending service to these touch points which in turn reflect in the customer service.

People Strategies…

- All human elements involved in service delivery or service assurance influence the buyer's perceptions.
- The private telecom companies have a limited number of experience centres or relationship centres or customer care centres at main towns and cities. These centres are managed by the franchisees.
- The service provider will dictate the terms to the franchisee with respect to code of conduct, dress code, personal grooming, telephone etiquettes, expected attitude and behaviour to be shown by the employees engaged by the franchisees while interacting with customers.
- The franchisee also benefitted from these win-win business relationships. The franchisees hire employees with extreme dealing skills and impart them sufficient knowledge along with adequate IT support to deal with customers.
- It is observed that the employees at customer support centres are youngsters especially females.

People Strategies…

- The BSNL manages their customer contact points largely through their own resources and employees.
- The general observation shows that the employees at customer touch points lack soft skills and knowledge to deal with customers as compared with the private sector providers. The IT support is inadequate to deal with customers. The workforce is also aged.
- The maintenance personnel of BSNL in landlines are highly unprofessional in appearance, skill sets, knowledge level and even at attitude and behaviour towards customers.
- The government employee attitude is predominant in BSNL.

Physical Evidence Strategies

- The physical evidence is the environment in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service.
- The private telecom service providers are keen in proving their presence through employee dresses, uniforms, brochures, tariff booklets, business cards, and glow sign boards etc. The ever-changing tariff is immediately updated and made available to retailers and customers. Their physical presence is evident even in the remote rural villages of Kerala.
- The BSNL mainly rely upon their customer care centre and telephone exchange network for proving the physical presence. As part of creating the tangibility, the telecom service providers seem to offer newly introduced value added services to customers for free trail for a limited period. This is followed by various sales promotion techniques to enthuse the customers to become the subscribers of the services. The advertisements, hoardings, events, and public relations also help building the physical evidence.

Process Strategies

- The actual procedures, mechanisms, and flow of activities by which the service is delivered are termed as process.
- The private sector providers widely utilise the retailer network to distribute their products and services. The process and procedures to avail mobile connections and associated services from private sector providers are very simple as compared to BSNL.
- Their retailers are motivated by trade schemes, incentives and proper back end support to push their products.
- Even though the BSNL procedures and process have been improved from the highly bureaucratic DoT era, it is still below the competitors' benchmarks.
- The single window concept is not yet a reality in BSNL especially with respect to landline segment.

Review of Marketing Strategies of Telecom Service Providers

- The market pioneer strategy was adopted by the service providers Escotel followed by BPL when they introduced mobile telecom services in Kerala in the year 1996.
- They maintained the position as product innovators as the services were new-to-the-world products.
- Orville C. Walker Jr. et al. (2008) suggest three important strategic marketing programs for pioneers. They are mass-market penetration, niche penetration and skimming. The skimming was the strategy adopted by early mobile service providers in Kerala.
- The ego bolstering needs of upper -upper segment of Kerala were stimulated by these telecom companies to market the services.
- The high end positioning of mobile services were continued till the entry of the service providers Airtel and BSNL in the mobile telecom market of Kerala during the later part of the year 2002.

Review of Marketing Strategies of Telecom Service Providers…

- The outgoing call charges were more than Rs 32/- per minute and incoming call charges were Rs 16/- per minute. Gradually they reduced the tariff. During 1998-99 periods the effective call charges decreased to Rs 16/- per minute. The mobile call charges further reduced to Rs 4/minute by March 2002.
- The market expansion was the growth market strategy adopted by BSNL. They differentiated the product offering targeted to the needs of various potential segments. The BSNL at their introductory stage itself differentiated their mobile telecom service with maximum geographical coverage and connectivity. In order to accelerate the market expansion they also practiced penetration pricing strategy. The BSNL introduced tariff plans with outgoing call charges as low as Re 1/- per minute. The BSNL was the first mobile telecom operator in Kerala introduced tariff plans with incoming calls free of charge. The BSNL became the market leader in Kerala within three years.

Review of Marketing Strategies of Telecom Service Providers…

- Subsequently all mobile operators adopted market follower strategy and mobile incoming calls became absolutely free. The competition in the market gradually enhanced. The minimum effective local call charges in cellular mobile services declined to 77 paise per minute by September 2003.
- The core product benefit of mobile telecom service, the geographical network coverage was substantially improved in Kerala due to the share-growth strategies of the followers. The focus of the telecom service providers gradually shifted from the upper and the middle class to the common people of Kerala.

Review of Marketing Strategies of Telecom Service Providers…

- In the growth stage of mobile telecom service in Kerala, the service providers widely utilised the pull strategy to promote their product and services.
- In a pull strategy the manufacturer uses advertising, promotion, and other forms of communication to persuade consumers to demand the product from intermediaries, inducing the intermediaries to order it.
- The advertisement with celebrity endorsement is a strategy followed by many companies to pull the customers. The choice of the celebrity is critical. The celebrity should have high recognition, high positive affect, and high appropriateness to the product.

Review of Marketing Strategies of Telecom Service Providers…

- The BPL advertisements were endorsed by the popular Malayalam cine artist Mohanlal. In the year 2006, BPL was taken over by Hutchison Essar and the mobile services were branded as Hutch. The advertisement strategy of Hutch had given a positive edge for the promotion of their products than other telecom service providers.
- The pug dog advertisement of Hutch with the caption *"Where ever you go our network follows"* was so popular at that time. Even after the takeover of Hutch by Vodafone in the year 2007, the pug dog advertisement continued.

Review of Marketing Strategies of Telecom Service Providers…

- The celebrity endorsement advertisement strategy is also followed by the Idea Cellular with the actor Abhishek Bachchan and Aircel with the cricketer M. S. Dhoni. The Bharti Airtel, which used several celebrities from Shah Rukh Khan to Kareena Kapoor to Sachin Tendulkar to A. R. Rahman earlier, now features unknown faces for its *'Jo tera hai, wo mera hai...'* series. Tata Docomo had endorsement deal with the actor Ranbir Kapoor. The Tata Indicom and the Reliance promoted their services with Kajol and Hrithik Roshan respectively. The BSNL formerly used celebrities Preity Zinta, Deepika Padukone and Abhinav Bhindra in their advertisements.
- The celebrity endorsement strategy was not adopted by the service provider Vodafone.

Review of Marketing Strategies of Telecom Service Providers…

- In the growth stage of mobile telecom services industry in Kerala, the telecom service providers were very keen in designing and publishing advertisements in popular media. As part of the advertisement strategy the telecom companies inserted catching captions and ad slogans in their advertisements. The noticeable stuff among them are: Idea: *'An Idea can change your life',* Airtel: *'Express Yourself'*, BSNL: *'Connecting India Faster'*, and MTS: *'A step ahead'*. Previously Vodafone was using *'Wherever you go Our network follows'* signifying the importance of network coverage the service. Then they used the taglines *'Power to you'* and *'Make the most of Now'* to describe the usefulness of various value added services. To show the customer care effectiveness, Vodafone used another caption *'Happy to Help'*. The lowest ever tariff of telecom services due to hyper competition in the market and the trends of market saturation negatively reflected in the revenue of the service providers. As part of reducing the operational expenditure, recently the telecom companies put restrictions on their ad campaigns. The advertisements became very rare for BSNL as compared to the private sector providers.

Review of Marketing Strategies of Telecom Service Providers…

- The BSNL was the market leader till 2007. In the year 2008, the private sector provider Idea through the frontal attack strategy captured the major market share and became the market leader.
- The Idea implemented frontal attack strategy against BSNL by differentiating its products and services accessible to all segments with attractive pricing, advertisements and sale promotion techniques.
- In the year 2009 the service providers Tata Docomo, MTS, Aircel, and Uninor and started mobile telecommunication services in Kerala. By the year 2010 the service provider Videocon also entered in the mobile telecom market of Kerala. The mobile network coverage of these operators was limited only in cities and towns.
- They primarily adopted flanking and encirclement strategies and sometimes guerrilla attack to compete with market giants such as Idea, BSNL and Vodafone.

Review of Marketing Strategies of Telecom Service Providers…

- A flank attack is appropriate when the market can be broken into two or more large segments, when the leader and or other major competitors hold strong position in the primary segment, and when no existing brand fully satisfies the needs of customers in at least one other segment.
- A challenger may be able to capture a significant share of the total market segment by concentrating primarily on one large untapped segment. This usually involves developing product features or services tailored to the needs and preferences of the targeted customers, together with appropriate promotional and pricing policies to quickly build selective demand.
- An encirclement strategy involves targeting several smaller untapped or underdeveloped segments in the market simultaneously. The idea is to surround the leader's brand with a variety of offering aimed at several peripheral segments. This strategy makes most sense when the market is fragmented into many different applications segments or geographical regions with somewhat unique needs or tastes.

Review of Marketing Strategies of Telecom Service Providers…

- When well- established competitors already cover all major segments of the market and the challenger's resources are relatively limited, flanking, encirclement or all-out frontal attacks may be impossible. In such cases, the challenger may be reduced to making surprise raids against its more established competitors called guerrilla attacks. The newly entered operators concentrated mainly in urban and semi-urban areas. Although their mobile coverage was limited only in cities and towns, they strategically positioned their mobile telecom services as the second option for urban Keralites. They positively differentiated their services in other elements of marketing mix especially in pricing and promotion. Tata Docomo became the most successful among the new entrants with these strategies. The Aircel initiated guerrilla attack with attractive 2G internet economic packages for the segment of students and youth.

Review of Marketing Strategies of Telecom Service Providers…

- The late entrants attack the leading telecom service providers with loss leader pricing strategy and explored the urban markets. In the loss leader pricing an initial low price is charged in the hope of getting more business at subsequently better prices. The risk associated with the initial low price is that, it may become the price for all times to come. They targeted the urban youth with attractive voice and data plans. The availability of affordable dual SIM mobile phones in the market also became great support for their strategy. The low pricing became prevailed among these operators because they are also lacking the core benefit issue of mobile telecom service, the sufficient mobile network coverage. In practice the customers began to primarily utilize these mobile connections in the available coverage areas. These telecom service providers also focused the segment of non-moving urban customers.

Review of Marketing Strategies of Telecom Service Providers…

- In the year 2009 itself, when Tata DoCoMo first introduced pay per second billing, it was an innovative pricing strategy in the extremely competitive Indian telecom market. Immediately all other operators became the followers of this strategy and also started offering pay per second plans.
- In 2012 TRAI (Telecom Regulatory Authority of India) intervened and ordered that there has to be at least one tariff plan each for both post-paid and pre-paid subscribers with pay per second pulse across all service providers so as to enable the subscribers to compare the tariffs offered by different service providers.

Review of Marketing Strategies of Telecom Service Providers…

- The strategic attacks of new entrants' further gravitate the competition in the market. The market leaders resorted to position defense strategies. The most basic defensive strategy is to continually strengthen a strongly held current position- to build an impregnable fortress capable of repelling attacks by current and or future competitors. This strategy is nearly always the part of a leader's share-maintenance efforts. By shoring up an already strong position, the firm can improve the satisfaction of current customers while increasing the attractiveness of its offering to new customers with needs and characteristics similar to those of earlier adopters. The *Idea* is the most successful mobile telecom service provider in Kerala with their position defense strategy. The *Idea* consistently maintains their market leadership in mobile telecom services for the last six years. The service providers *BSNL* and *Vodafone* are also successful to an extent in position defense, and occupy the second and third positions respectively in the market.

Review of Marketing Strategies of Telecom Service Providers…

- The prominent private sector telecom service providers established distinctive channel management systems to deliver their products and services. The Airtel distribution strategy was proclaimed as *match box strategy* - where ever match boxes are available, Airtel mobile telecom products such as SIM (Subscriber Identity Module) cards and recharge coupons are also invariably available. This strategy was also adopted by almost all prominent private players. The private telecom service providers ensure maximum reach - the availability of their products at almost all the multi brand retail outlets of Kerala.
- Thus the private sector providers mainly adopted this intensive distribution strategy, which involves the use of all possible outlets to distribute their products and services.

Review of Marketing Strategies of Telecom Service Providers…

- At the same time every private service provider attempts to enhance the extraction - the percentage share of sales of their products at each retailer outlet through push strategy. A push strategy uses the manufacturer's sales force, trade promotion money, or other means to induce the intermediaries to carry, promote, and sell the product to end users. This leads to launch of very attractive trade schemes for the retailer network. The push of the products of a particular service provider certainly depends on the attractiveness of trade schemes and backend support extended to the retailer network. This strategy makes prominent private service providers' products available at every nook and corner of Kerala.

Review of Marketing Strategies of Telecom Service Providers…

- In the earlier stages the public sector provider BSNL adopted the exclusive distribution strategy to distribute their products and services. The exclusive distribution strategy means selling a company's products/brands in a market through the outlets that deals exclusively in company's products and do not sell any competing brands. These are company's authorised showrooms or outlets and the company has direct control over price, promotion and inventory etc. of the product.
- In this strategy BSNL primarily utilised its own customer service centres, telephones exchanges, and exclusive franchisees for the distribution of products and services till the year 2008. The government legacy and bureaucratic nature of BSNL customer care centres were incapable of competing with distribution network of major private sector service providers. Even though BSNL appointed franchisees for channel management, the same were not effective as main private players'. Eventually BSNL realised the situation and tried to build the retail networks for intensive distribution. This attempt is being continued.

Review of Marketing Strategies of Telecom Service Providers…

- The landline telecom industry in Kerala has been declining since the year 2007. As the part of profitable survivor strategy, the landline service providers are trying value addition of landline services by extending broadband internet facility to the landline customers.
- The private landline service provider the Reliance has provided the tariff options without rental component and offered it to the customers with usage charges only, to get a competitive advantage.
- Even though BSNL introduced prepaid tariff plans in landline services it was not successful.

Review of Marketing Strategies of Telecom Service Providers…

- The discount pricing was the subsequent pricing strategy adopted by BSNL in landline segment. They introduced landline tariff plans with discounted annual rental basis. This helped BSNL to ensure a committed period of at least one year from plan opted landline customers.
- The private sector landline telecom service providers Reliance, Tata and Airtel adopted the market development strategy by exploring the opportunities in corporate segments. They focused on urban business customers such as upcoming textile showrooms, residential flats and other business establishments.

Review of Marketing Strategies of Telecom Service Providers…

- The prominent landline service provider BSNL experimented product bundling of landline services with their mobile telecom services. In this product bundling strategy, BSNL issued mobile connections free of cost to all of their landline customers with mobile numbers matched with the landline numbers. They promote the program labelled as *'Home SIM'* campaign. The customers are offered with unlimited free calls between their landline and mobile connections. This became a boost up for the landlines connections and helped them to enhance the mobile customer base.
- The mobile telecom service providers also practiced the bundled offer of mobile connection and handset. In order to attract the lower-lower segment, the MTS offered handset with mobile connection as low as Rs 600/-

Review of Marketing Strategies of Telecom Service Providers…

- The events and experiences put forth to the customers can be used for enhancing the brand value and boosting the sales. The public sector service provider BSNL repeatedly conducts the events called BSNL *melas.* Special event pricing is the strategy adopted by BSNL in these events. In the special event pricing strategy sellers will establish special prices in certain occasions to draw in more customers. These events help tangibilizing the service offerings and provide the physical evidence for the customers.
- The physical representation in services has a good promotional appeal to customers. The physical evidence strategy of the service providers Idea and Vodafone were proved through two well-liked Malayalam television programmes, '*The Idea Star Singer*' and '*The Vodafone Comedy Stars*'.

Review of Marketing Strategies of Telecom Service Providers…

- The mobile telecom service provider Idea has been sponsoring the *Idea Star Singer* programme in the television channel Asianet since 2006. It is a popular Malayalam music reality-television competition, broadcast regularly from Monday to Friday. The program aims to discover the young promising music talents in Kerala and the winner is determined by the viewers and panel of judges based on the contestant's skill in singing. This television programme has enhanced the brand image of Idea among the domestic viewers.
- The *Vodafone Comedy Stars* was a popular Malayalam reality-television competition, broadcast regularly by the channel Asianet and was sponsored by Vodafone. This programme helped Vodafone in their brand building.

Review of Marketing Strategies of Telecom Service Providers…

- Divestment is a strategy aimed at leaving markets or segments of low attractiveness or segments where the firm does not have the capacity to acquire or sustain a competitive advantage.

- The private sector service providers Videocon and Uninor have already implemented the divestment strategy and withdrew from the telecom services market of Kerala and the service provider Aircel is at the verge of this strategy implementation.

Review of Marketing Strategies of Telecom Service Providers…

- The primary focus of marketing strategies of telecom service providers is to seek competitive advantage and synergy through a well-integrated program of services marketing mix elements (the 7 Ps of product, price, place, promotion, people, physical evidence and process) tailored to the needs and wants of potential customers in that target market. The differentiation is the powerful theme in developing marketing strategies. As Michel Porter points out, “A company can outperform its rivals only if it can establish a difference that it can preserve. It must deliver greater value to customers or create comparable value at lower cost or both”.
- It is clear that the different strategies adopted by BSNL and private sector service providers have different dimensions of impact in their marketing process.

Part 04

Slide No. 80 to 202

Comparative Study of Marketing Strategies of Telecom Service Providers in Kerala

Introduction

- Telecom service plays a vital role in the socio-economic development of a nation.
- The telecom services in India had been the monopoly of the government sector till early 1990s.
- In 1990s, the telephone spread in India was 0.8 per hundred persons as against the world average of 10 per hundred persons.
- The post liberalization period was favorable for the development of telecommunication services sector in India.

Need and Significance of the Study

- The Indian telecommunication services sector has undergone revolutionary changes during the past two decades. The decline of landline services and amazing growth of mobile telecom services were the noted changes.
- The landline segment was the major telecom business in India till private sector providers started mobile telecommunication services in mid 1990s.
- The focus of public sector telecom service provider – BSNL (Bharat Sanchar Nigam Limited) was in landline telecom services till its entry in mobile telecom market of Kerala in the year 2002. The telecom market of Kerala became highly competitive with the entry of various domestic and foreign telecom service providers.

Need and Significance of the Study…

- The fast growing mobile telephony substituted landlines. Telecom service providers experimented many strategic marketing initiatives in Kerala. The strategies significantly vary from public sector to private sector and operator to operator.
- Hardly any serious research study has ever been undertaken in this area.
- Therefore it will be relevant to investigate the marketing strategies of BSNL, the only public sector telecom service provider and private sector telecom service providers in Kerala.

Scope of the Study

- To identify and illustrate different marketing strategies adopted by BSNL and major private sector telecom service providers, among their retail customers of Kerala in respect of
  - ❖ Mobile Telecom Services including 3G
  - ❖ Landline Telecom Services including Broadband Internet

Objectives

- To study
  - the product differentiation strategies of Public Sector Telecom Service provider - BSNL and Private sector telecom service providers in Kerala.
  - the pricing strategies of BSNL and Private sector telecom service providers in Kerala.
  - the promotion strategies of BSNL and Private sector telecom service providers in Kerala.
- To evaluate the marketing strategies related to the third generation (3G) mobile telecommunication services of BSNL and private sector mobile telecom service providers in Kerala.
- To ascertain the important factors and its effects related to customer satisfaction and loyalty of consumers of mobile telecom services.

Hypothesis

- There is
  - Significant difference between the product differentiation strategies of BSNL and private sector mobile telecom service providers in Kerala.
  - Significant difference between the pricing strategies of BSNL and private sector mobile telecom service providers in Kerala.
  - Significant difference between the promotion strategies of BSNL and private sector mobile telecom service providers in Kerala.

Hypothesis…

- There is
  - Significant difference between the marketing strategies related to the third generation (3G) mobile telecommunication services of BSNL and private sector mobile telecom service providers in Kerala.
  - Significant relationship between the service related factors specifically service benefits, customer support services, quality of service, competitive pricing, tariff variety and unethical practices in mobile telecom services sector and customer satisfaction.

Methodology

- The mobile telephone customers of Kerala were the study population.
- In the first stage, the entire population is divided into three strata.

Pilot Study

- A pilot study was conducted among 60 respondents.

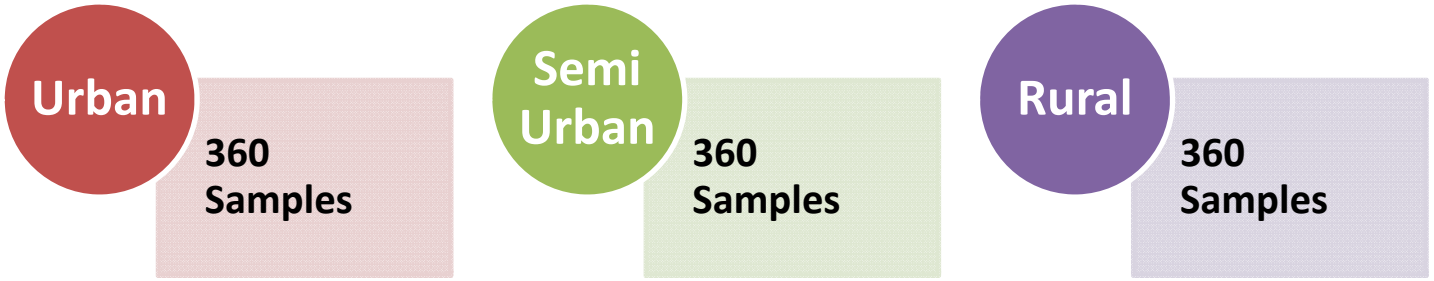
Urban	Semi Urban	Rural
• Kochi Municipal Corporation • 20 Samples	• Kannur Municipality • 20 Samples	• Vamanapuram Panchayat • 20 Samples

Validity and Reliability

- In the questionnaire design, major aspects of validity especially: face validity, content validity and construct validity were carefully considered.
- The realistic environment experienced in the pilot study helped the researcher to assess the validity of the instrument and to revise the questionnaire for primary data collection.
- Cronbach's, alpha coefficient is computed for all the multi item scales used in the questionnaire and the alpha values obtained are above 0.7. This ensures the reliability of the questionnaire.

Sample Design

- The sample size of the study was 1080 comprising of 360 random samples each from each stratum.



Sample Design…

Urban Stratum.

Three Municipal Corporations.

Sample size: 360

- **Thiruvananthapuram, Kochi, Kozhikode**
- **Six Wards from each Corporation, 20 respondents from each ward.**

Semi Urban Stratum.

Nine Municipalities.

Sample size: 360

- **Neyyattinkara, Punalur, Pala, Chalakudi, Vadakara, Malappuram, Kalpetta, Kannur, Kasaragod**
- **Two Wards from each Municipality, 20 respondents from each ward.**

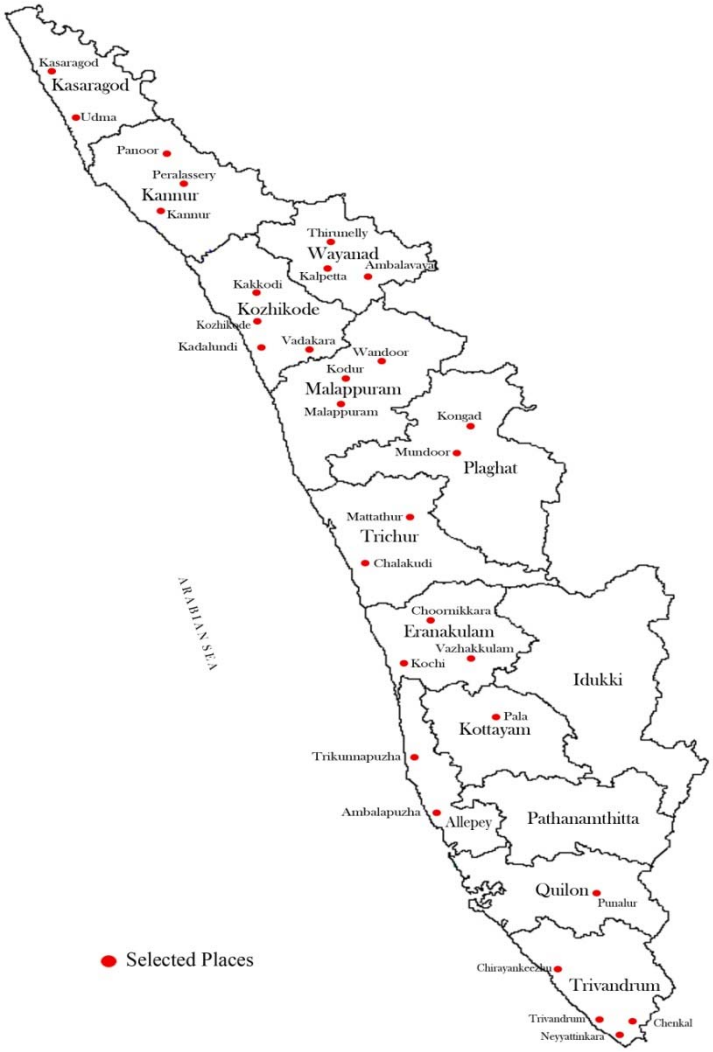
Rural Stratum.

Eighteen Grama Panchayats.

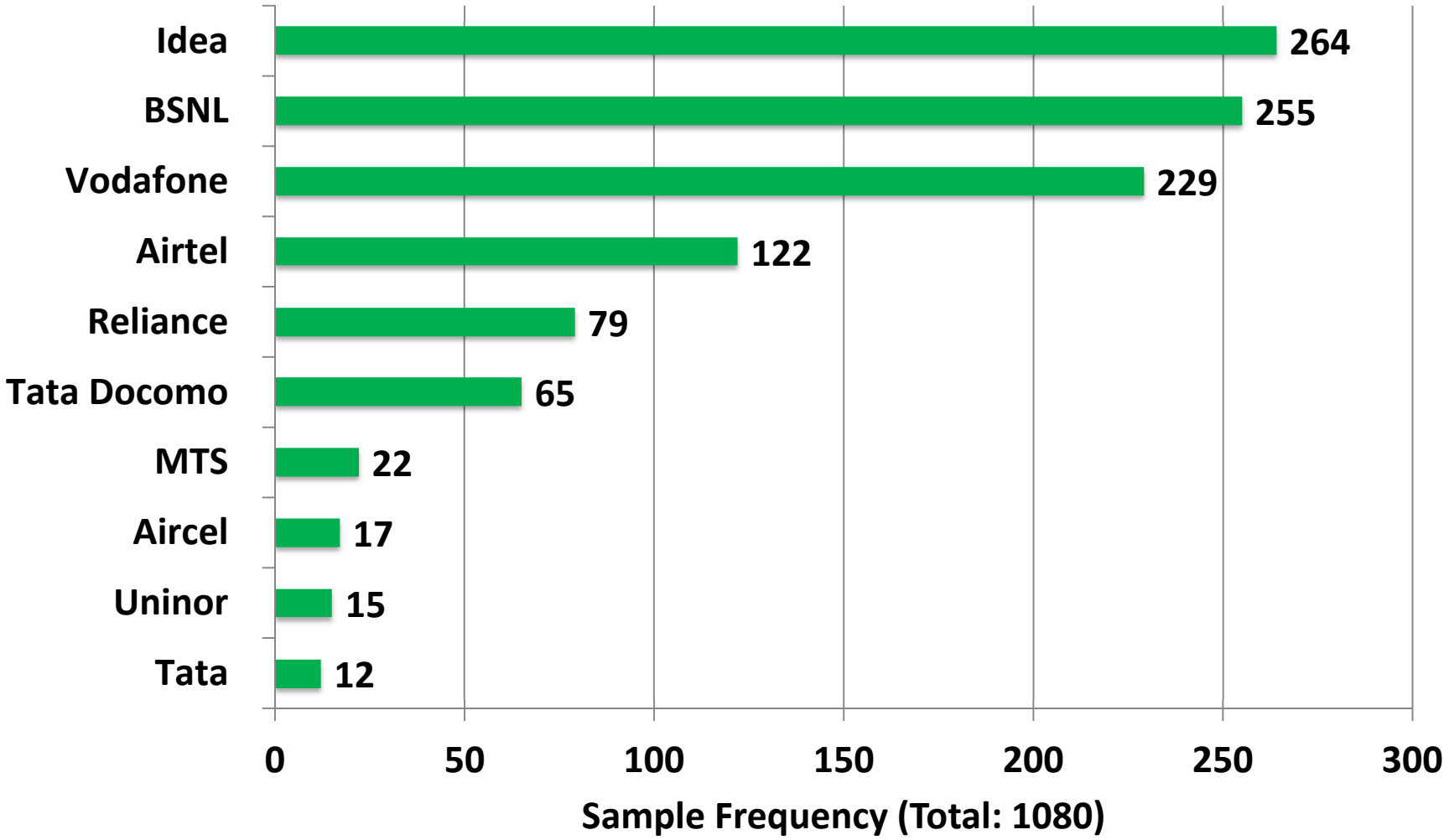
Sample size: 360

- **Chenkal, Chirayinkeezhu, Ambalapuzha South, Thrikkunnapuzha, Vazhakkulam, Choornikkara, Mattathur, Mundoor, Kongad, Wandoor, Kodur, Kadalundi, Kakkodi, Ambalavayal, Thirunelly, Panoor, Peralassery, Udma.**
- **Two Wards from each Panchayat, 10 respondents from each ward.**

Sample Design…



Sample Representation - Mobile Service Providers



Data Analysis

- The primary data collected are statistically processed, classified and tabulated using suitable methods. The Statistical Package for Social Sciences (SPSS 16.0) was used for data analysis.
- The statistical techniques and tools used in the study are:
  - Pearson's chi-square test ($\chi 2$)
  - Kolmogorov-Smirnov test /Shapiro-Wilk test
  - Levene's test
  - Kruskal-Wallis test
  - Mann-Whitney U test
  - Correlation analysis
  - Logistic regression analysis

Product Differentiation Strategies

Hypothesis 1

There is significant difference between the product differentiation strategies of BSNL and private sector mobile telecom service providers in Kerala.

Product Differentiation Strategies…

- The private telecom service providers considered for the analysis of product differentiation strategies are *Idea, Vodafone and Airtel.*
- Kolmogorov-Smirnov test and Shapiro-Wilk test are used to verify the normality of sample distributions of the variables. The results showed that the distributions are significantly non-normal.
- Levene's test is used to check the homogeneity of variances. The results showed that the variances of the groups have heterogeneous variances.
- Therefore the Kruskal-Wallis test is used to test the Hypothesis. The Mann-Whitney U test is applied for the non-parametric post hoc procedures.

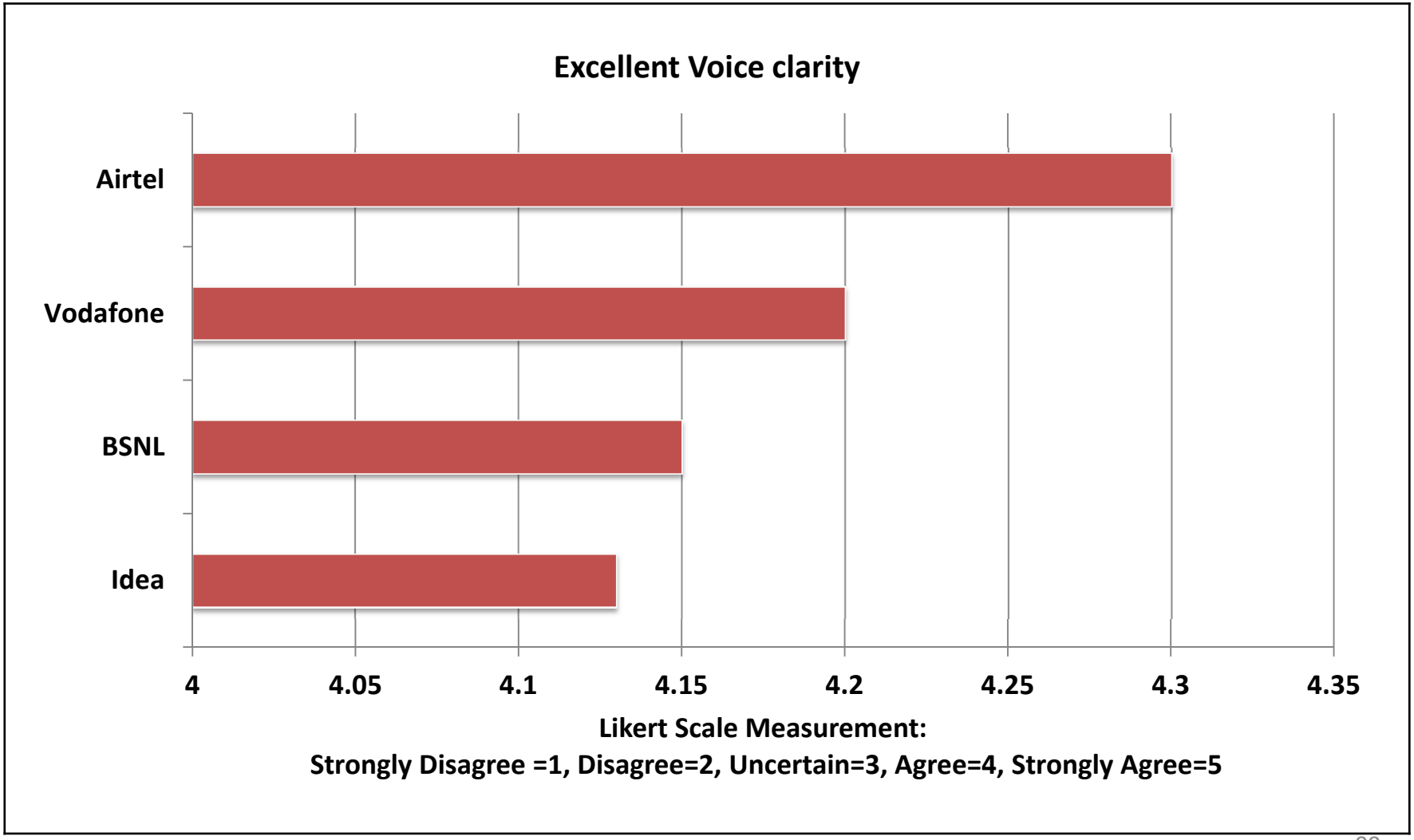
Product Differentiation Strategies…

Variables	Items
Basic core service benefits	(i) Voice clarity, (ii) Geographical network coverage, and (iii) Easiness to get connected to the network
Supplementary core service benefits	(i) Roaming facility and (ii) Easiness in the activation of internet services
Customer support services - product availability	(i) Easiness to get new mobile connection, (ii) Availability of recharge facility at convenient locations, (iii) Retailer support for the prepaid customers, (iv) Convenience of payment of post-paid bills, and (v) Special care for the post-paid customers
Customer support services - customer care	(i) Easiness to activate additional services, (ii) Easiness to deactivate additional services - if required, (iii) Easiness to access customer care helpline, (iv) Easiness to get the right customer care person on the phone and (v) Ability to solve problems at customer care touch points
Quality of service	The service quality of mobile phone services is measured by the 22-item SERVQUAL scale.
Brand value	The brand value of mobile service providers is measured based on the concepts of Young and Rubicam's Brand Asset Valuator (BAV)

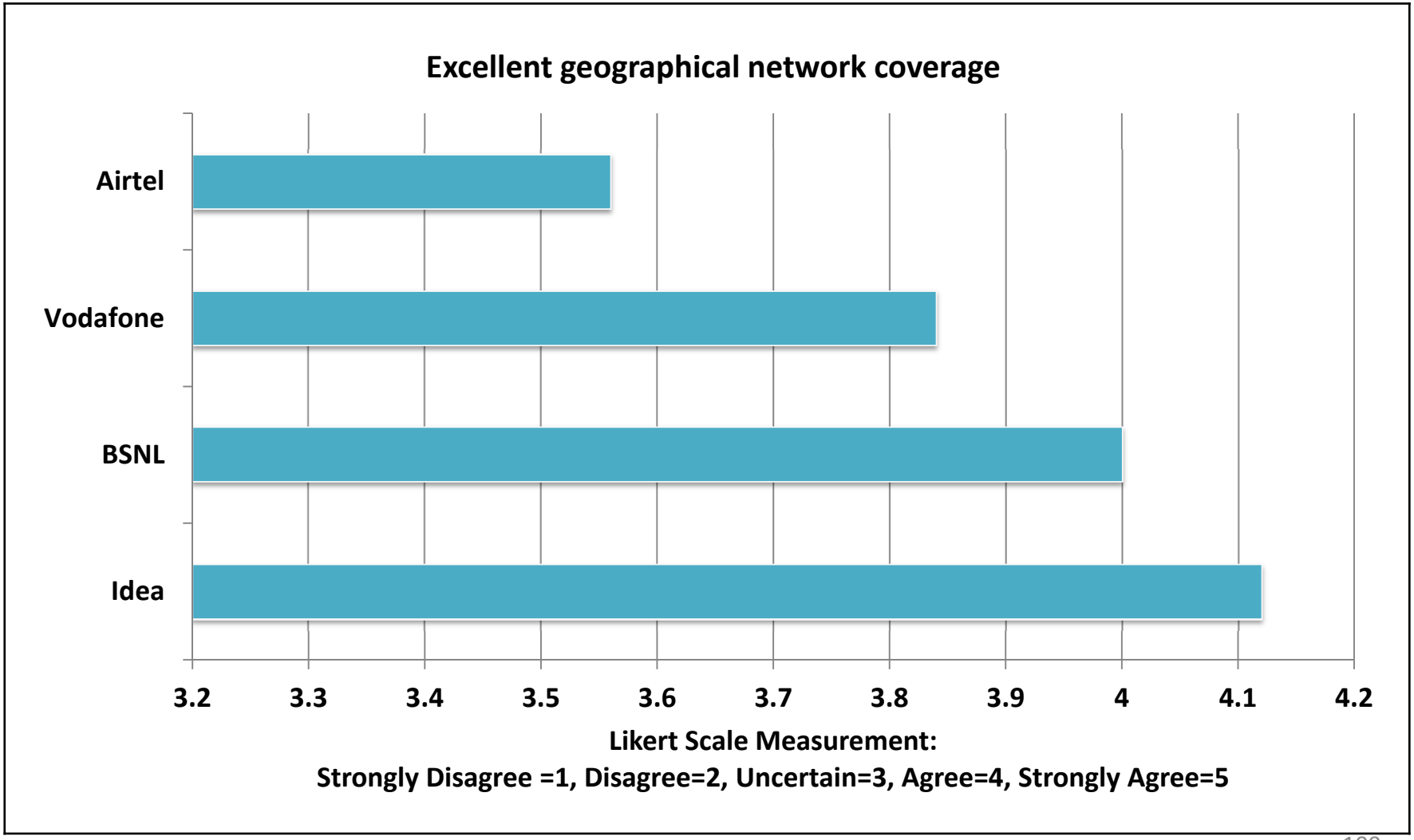
Product Differentiation Strategies…

Variable: Basic core service benefits								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Voice clarity	0.012	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.529	No Significant Difference between BSNL and Idea	0. 820	No Significant Difference between BSNL and Vodafone	0. 011	Significant Difference between BSNL and Airtel. Airtel has the positive Product differentiation
Geographical network coverage	0.000		0.396		0. 002	Significant Difference between BSNL and Vodafone. BSNL has the positive Product differentiation	0. 000	Significant Difference between BSNL and Airtel. BSNL has the positive Product differentiation
Easiness to get connected to the network	0.000		0.002	Significant Difference between BSNL and Idea. BSNL has the positive Product differentiation	0. 024	No Significant Difference between BSNL and Vodafone	0. 093	No Significant Difference between BSNL and Airtel.

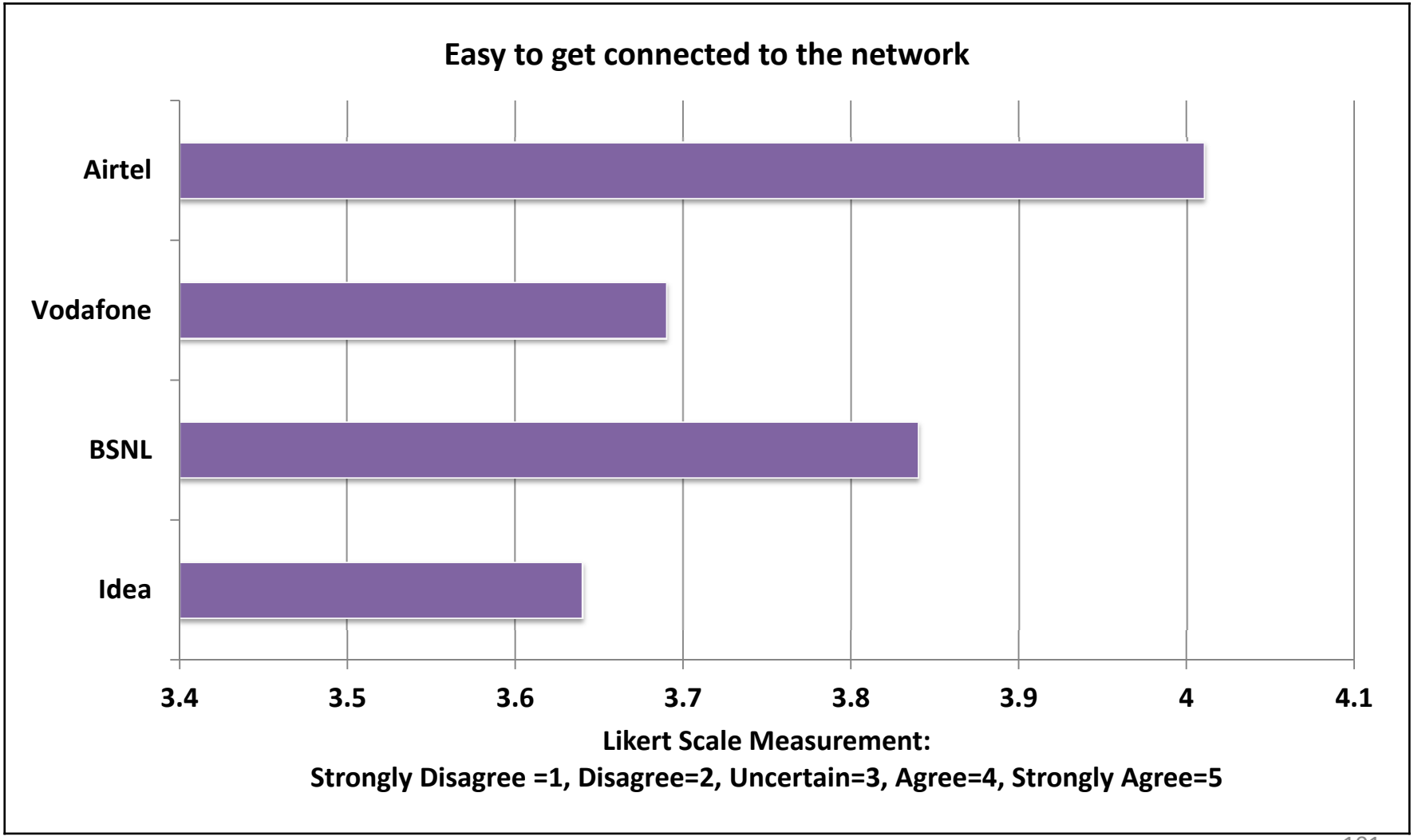
Differentiation in Voice Clarity



Differentiation in Network Coverage



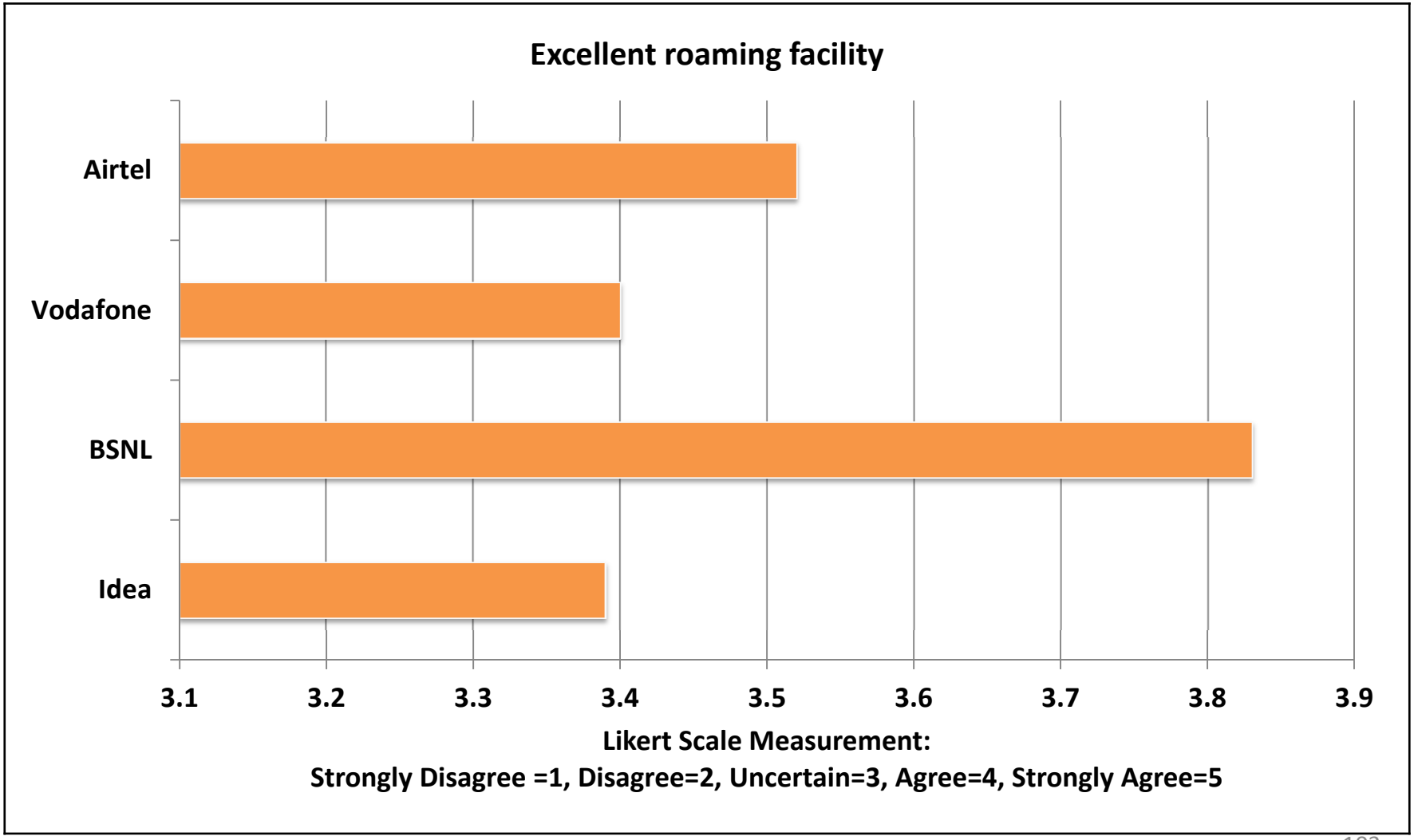
Differentiation in Easiness to Get Connected



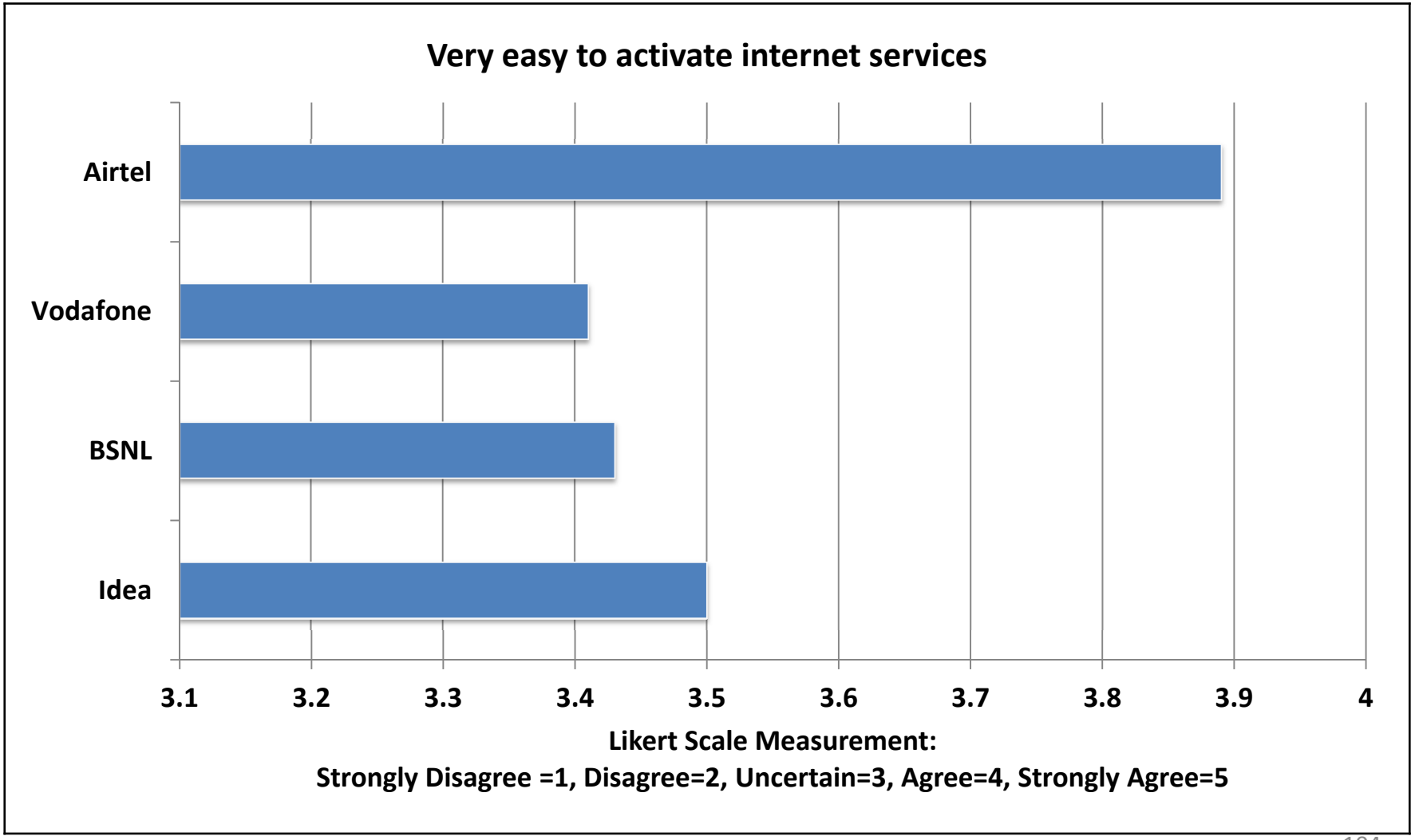
Product Differentiation Strategies…

Variable: Supplementary core service benefits								
Items	Kruskal-Wallis test - Significance Value. (∝=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∝=0.0167)	Hypothesis Test Results
Excellent roaming facility	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. BSNL has the positive Product differentiation	0.000	Significant Difference between BSNL and Vodafone. BSNL has the positive differentiation	0.003	Significant Difference between BSNL and Airtel. BSNL has the positive differentiation
Very easy to activate internet services	0.000		0.304	No Significant Difference between BSNL and Idea	0. 856	No Significant Difference between BSNL and Vodafone	0.000	Significant Difference between BSNL and Airtel. Airtel has the positive differentiation
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

Differentiation in Roaming Facility



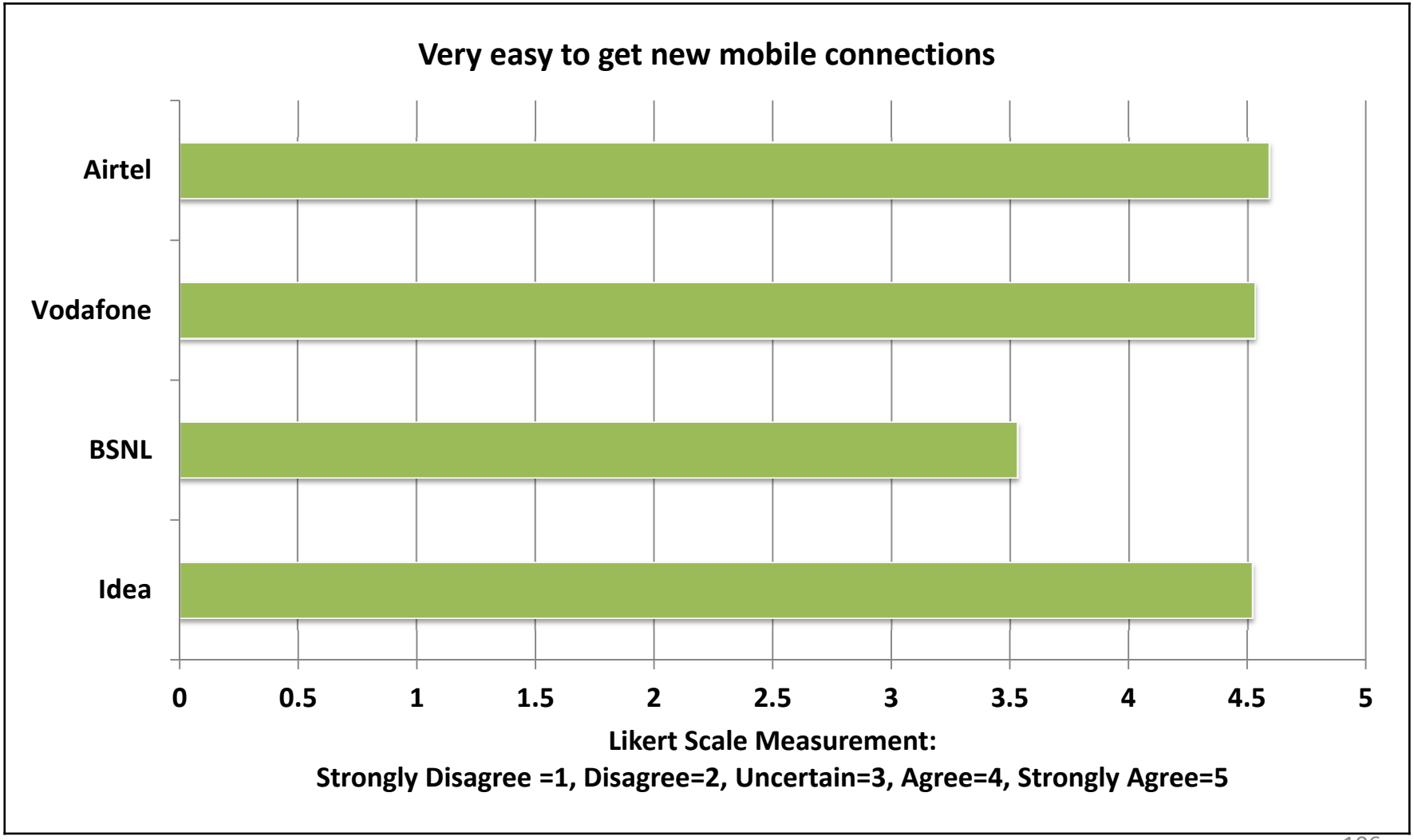
Differentiation in Internet Activation



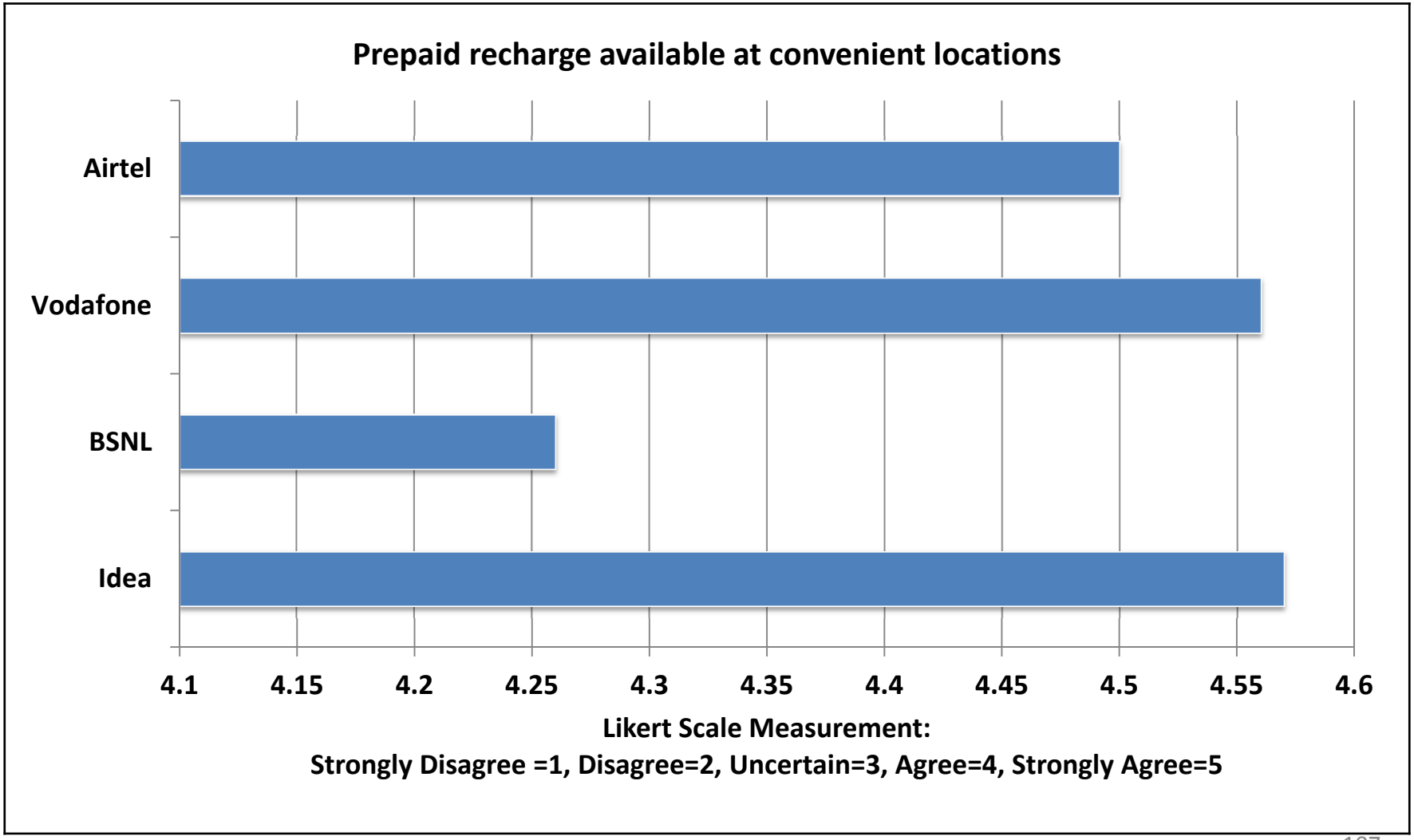
Product Differentiation Strategies…

Variable: Customer support services - Product availability of prepaid mobile telecom services								
Items	Kruskal-Wallis test - Significance Value. (∝=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∝=0.0167)	Hypothesis Test Results
Very easy to get new mobile connection	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. Idea has the positive Product differentiation	0.000	Significant Difference between BSNL and Vodafone. Vodafone has the positive Product differentiation	0.000	Significant Difference between BSNL and Airtel. Airtel has the positive Product differentiation
Prepaid recharge available at convenient locations	0.000		0.000		0.000		0.006	
Retailer support	0.000		0.000		0.000		0.000	
Grouping Variable: Mobile Service Provider, N=766, BSNL – 230, Idea – 229, Vodafone – 200, Airtel – 107.								

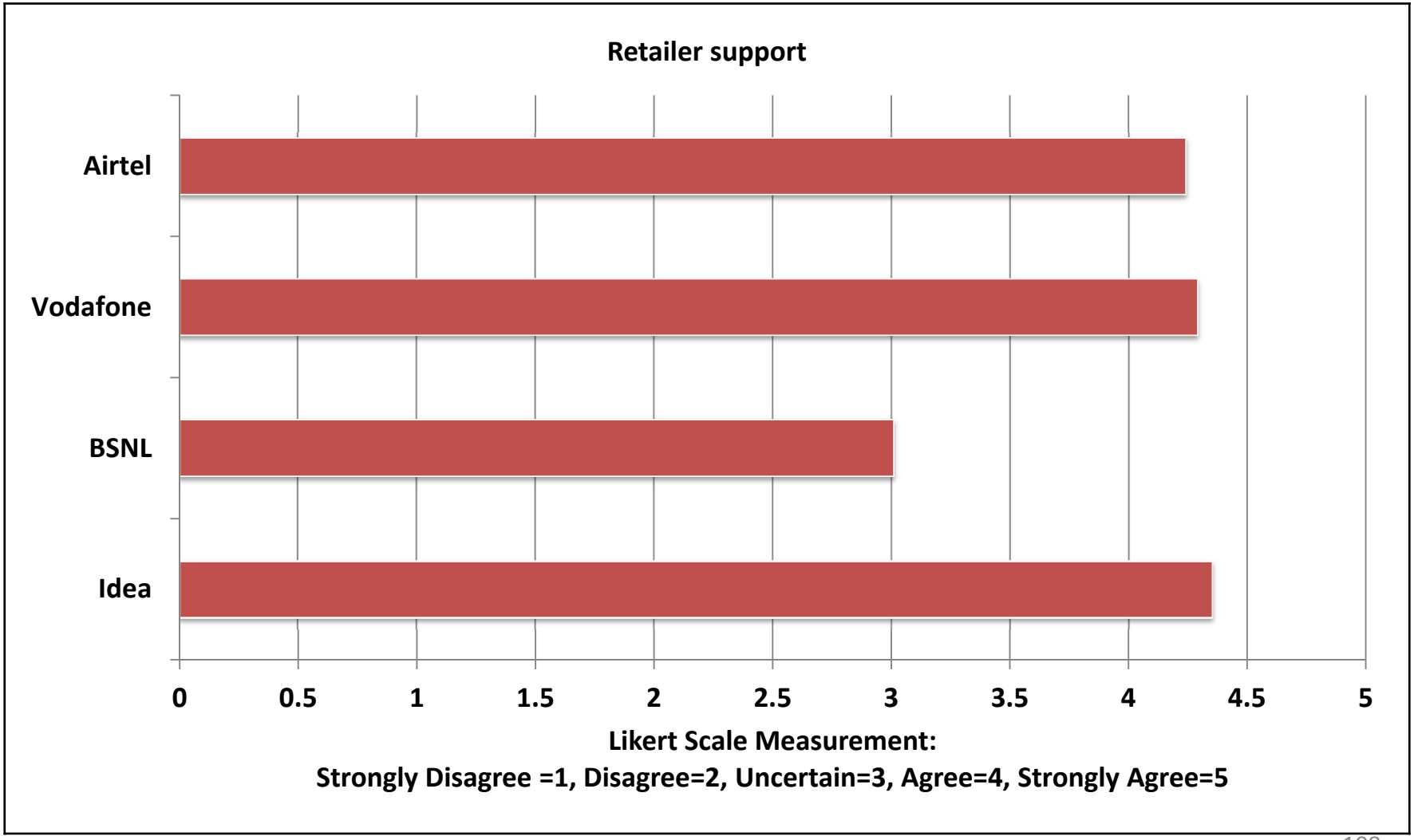
Very easy to get new prepaid mobile connections



Recharge available at convenient locations



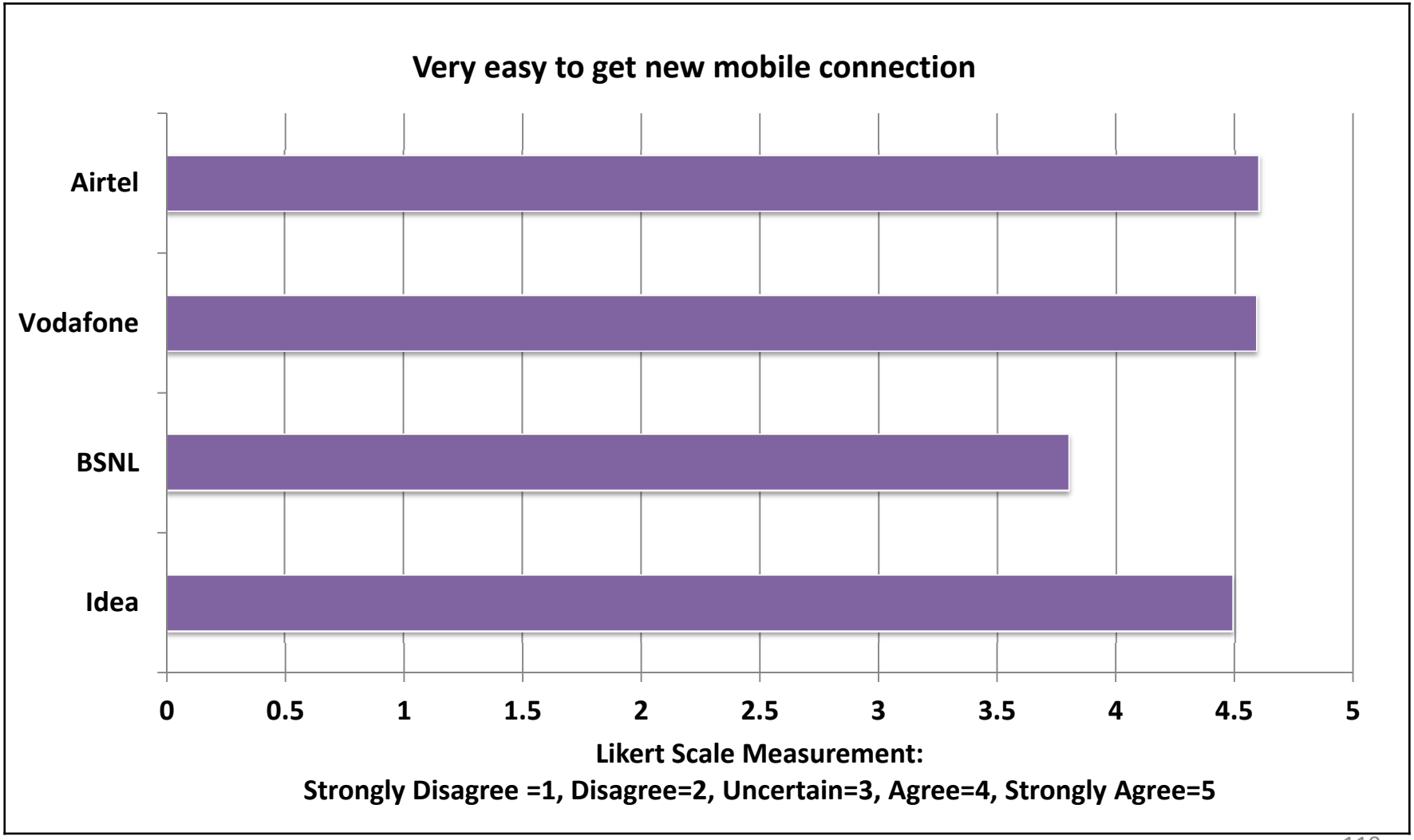
Excellent support from Retailers



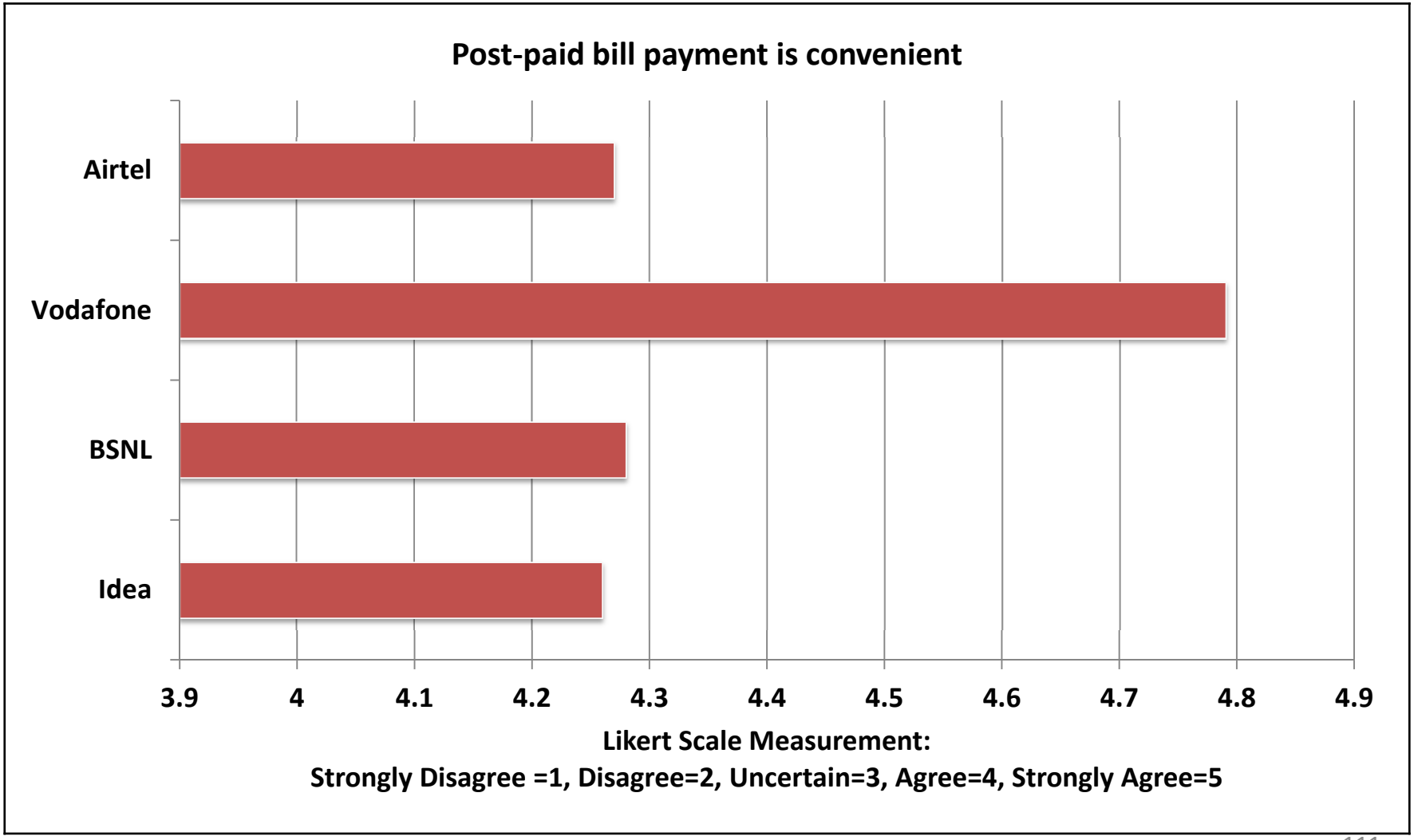
Product Differentiation Strategies…

Variable: Customer support services - Product availability of post-paid mobile telecom services								
Items	Kruskal-Wallis test - Significance Value. (∝=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∝=0.0167)	Hypothesis Test Results
Very easy to get new mobile connection	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. Idea has the positive Product differentiation	0.000	Significant Difference between BSNL and Vodafone. Vodafone has the positive Product differentiation	0.000	Significant Difference between BSNL and Airtel. Airtel has the positive Product differentiation
Post-paid bill payment is convenient	0.006		0.868	No Significant Difference between BSNL and Idea	0.006		0.490	No Significant Difference between BSNL and Airtel
Special care for post-paid customers	0.000		0.000	Significant Difference between BSNL and Idea. Idea has the positive Product differentiation	0.000		0.000	Significant Difference between BSNL and Airtel. Airtel has the positive Product differentiation
Grouping Variable: Mobile Service Provider, N=104, BSNL – 25, Idea – 35, Vodafone – 29, Airtel – 15.								

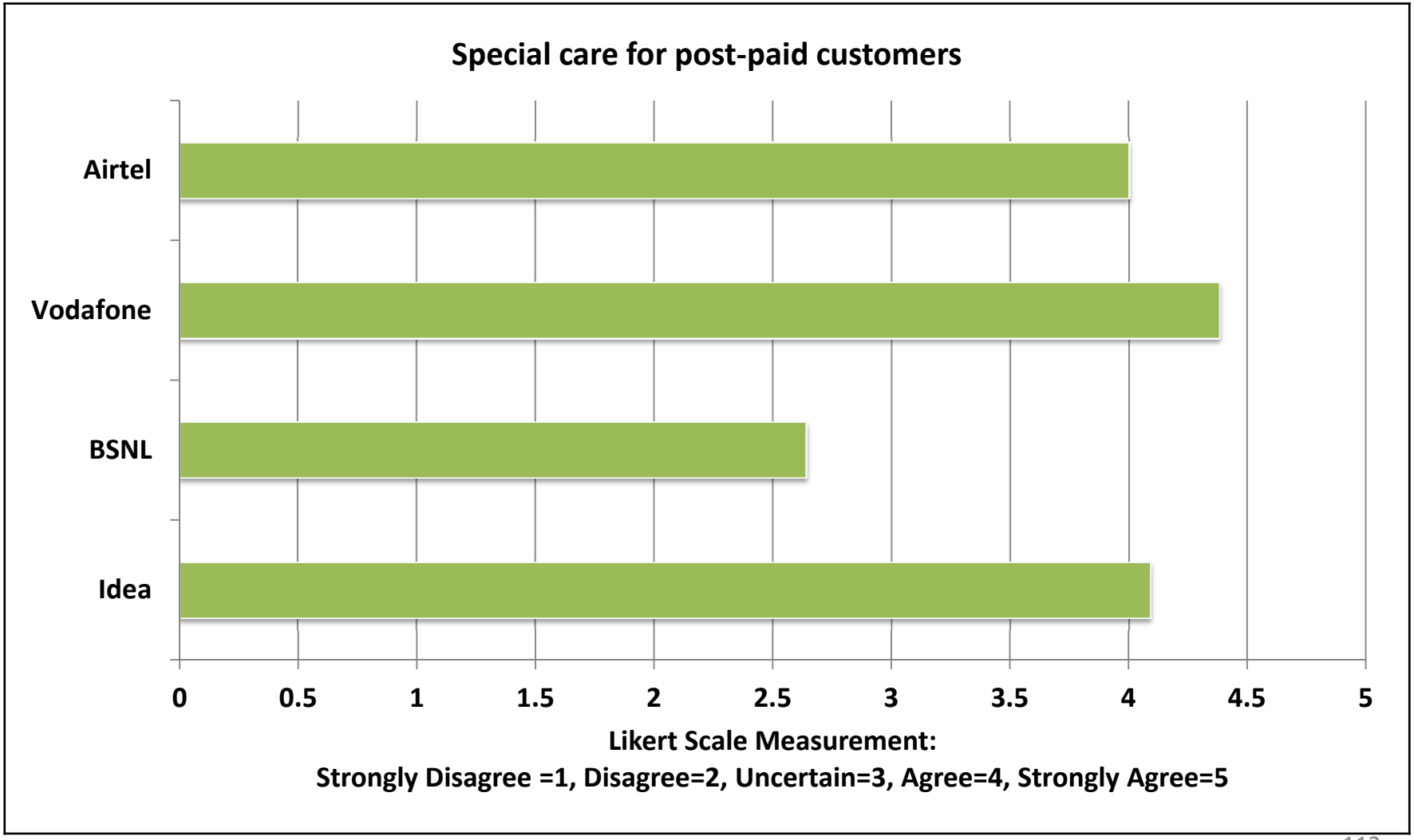
Very easy to get new post-paid mobile connections



Post-paid bill payment is convenient



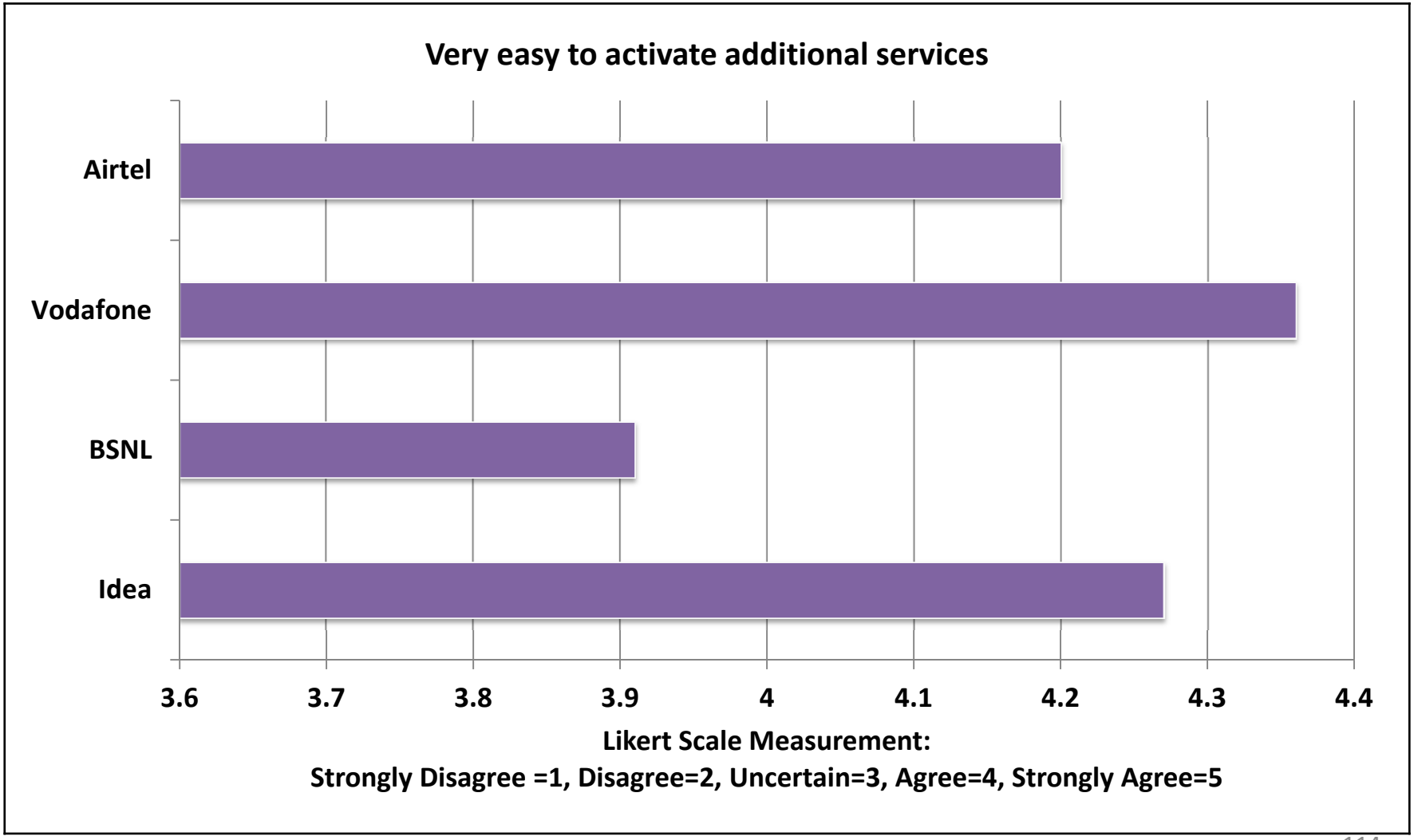
Special Care for Post-paid customers



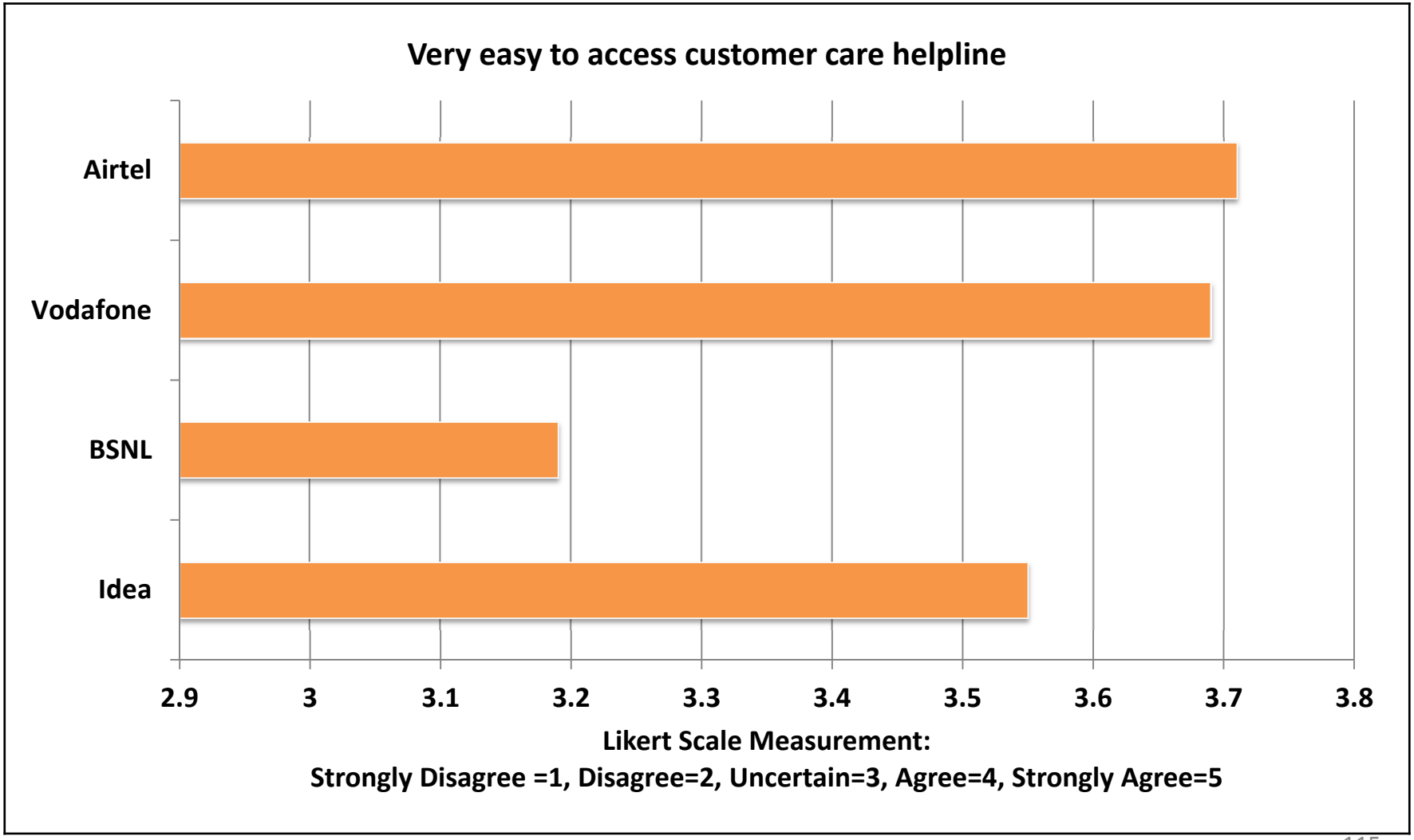
Product Differentiation Strategies…

Variable: Customer care services								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Very easy to activate additional services	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. Idea has the positive product differentiation	0.000	Significant Difference between BSNL and Vodafone. Vodafone has the positive product differentiation	0.000	Significant Difference between BSNL and Airtel. Airtel has the positive product differentiation
Very easy to access customer care helpline	0.000		0.000		0.000		0.000	
Very easy to deactivate additional services, if required	0.000		0.001	Significant Difference between BSNL and Idea. BSNL has the positive product differentiation	0.579	No Significant Difference between BSNL and Vodafone	0.549	No Significant Difference between BSNL and Airtel
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

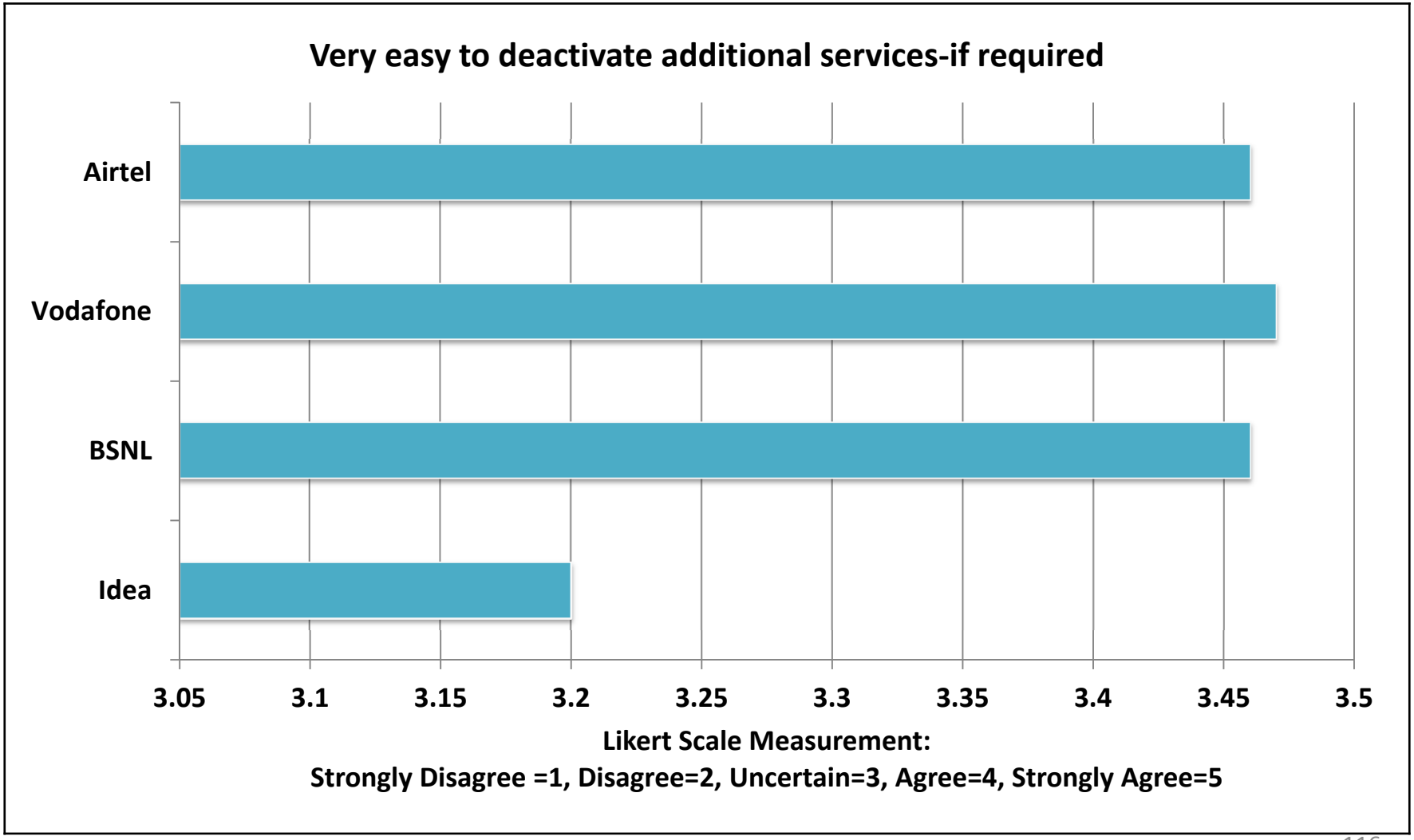
Very easy to activate additional services



Very easy to access customer care helpline



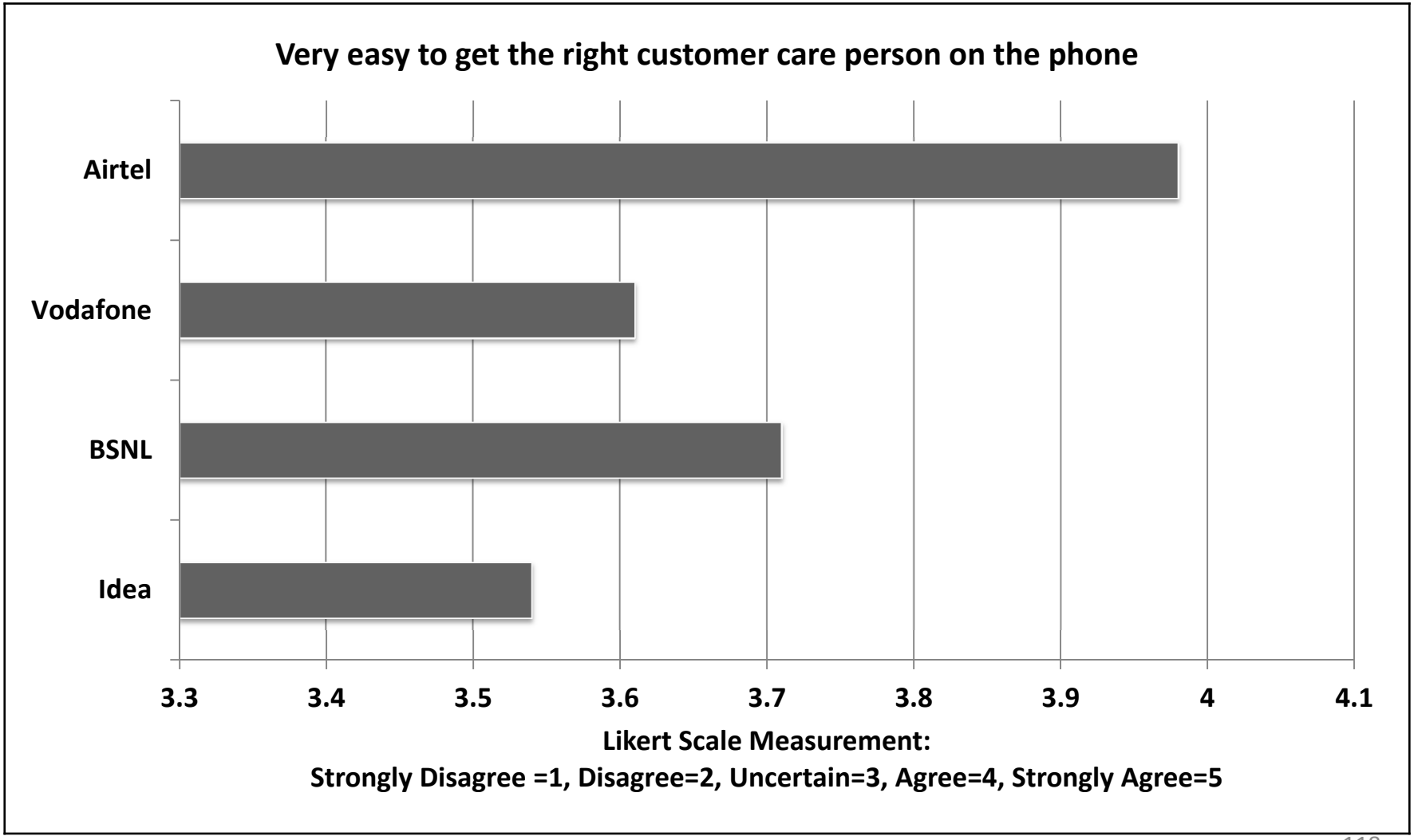
Very easy to deactivate additional services, if required



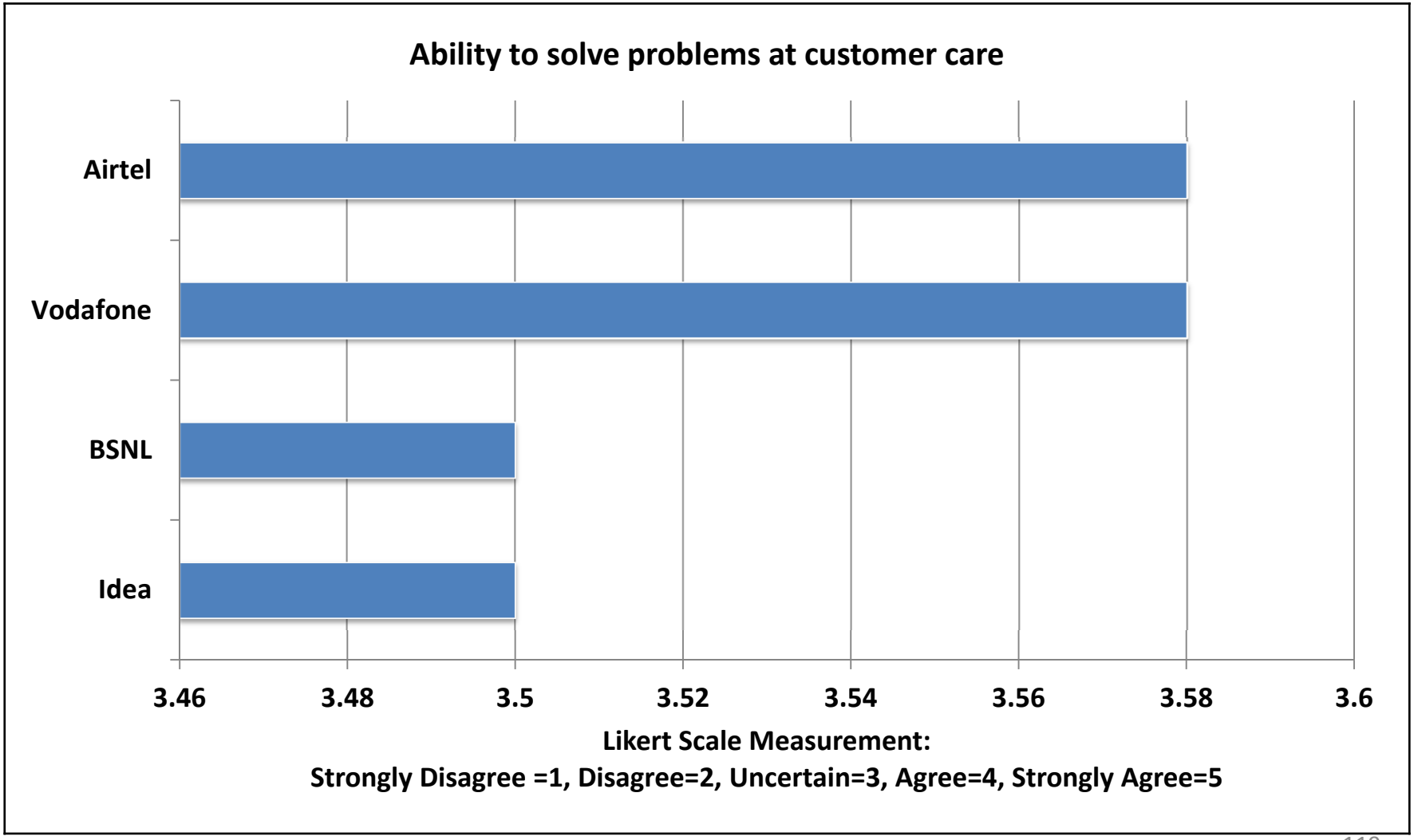
Product Differentiation Strategies…

Variable: Customer care services…								
Items	Kruskal-Wallis test - Significance Value. (∝=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∝=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∝=0.0167)	Hypothesis Test Results
Very easy to get the right customer care person on the phone	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.010	Significant Difference between BSNL and Idea. BSNL has the positive differentiation	0.114	No Significant Difference between BSNL and Vodafone	0.011	Significant Difference between BSNL and Airtel. Airtel has the positive product differentiation
Solve problems at customer care	0.511	No Significant Difference between BSNL and private sector telecom service providers	0.794	No Significant Difference between BSNL and Idea	0.503	No Significant Difference between BSNL and Vodafone	0.243	No Significant Difference between BSNL and Airtel
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

Very easy to get the right customer care person on the phone



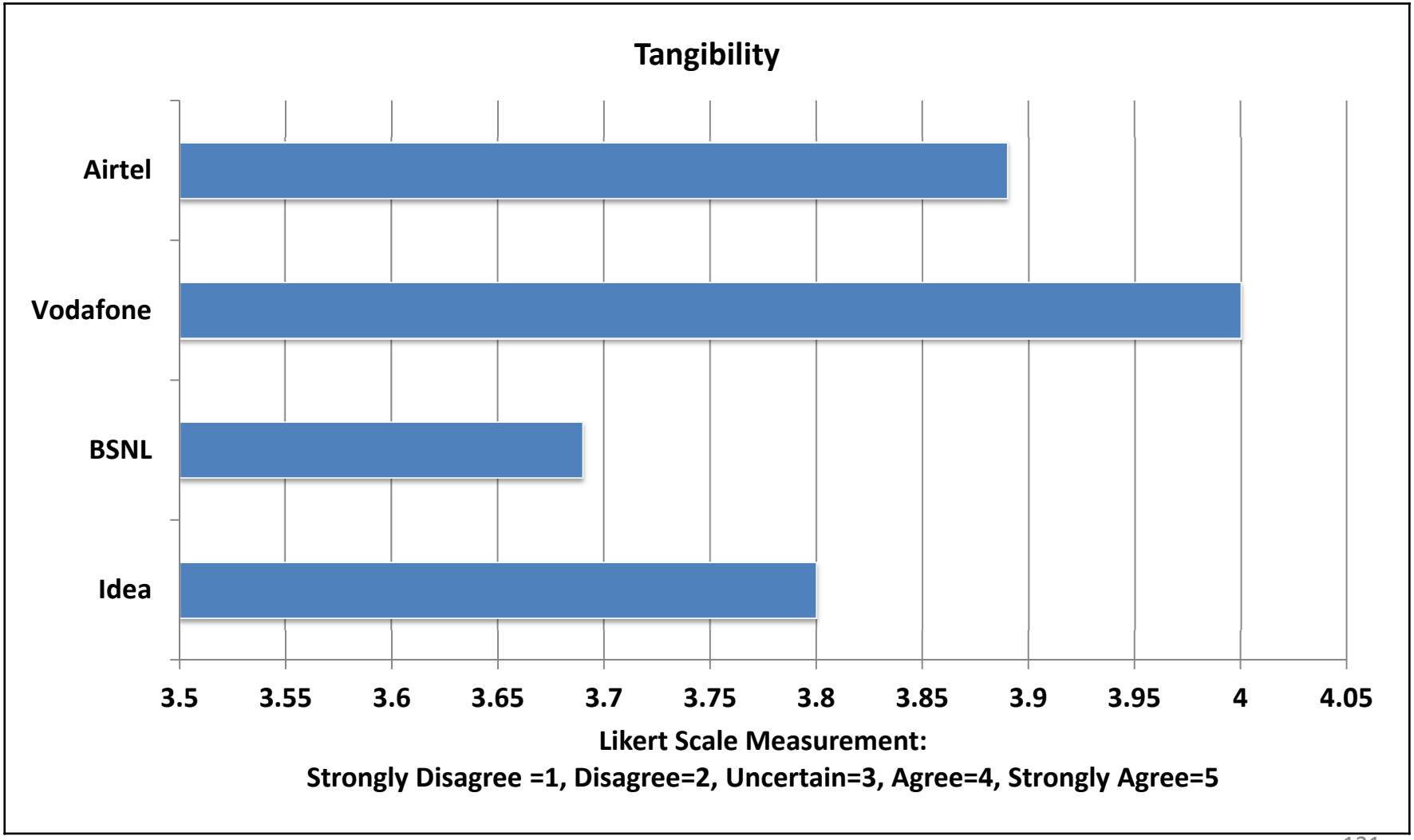
Solve problems at customer care



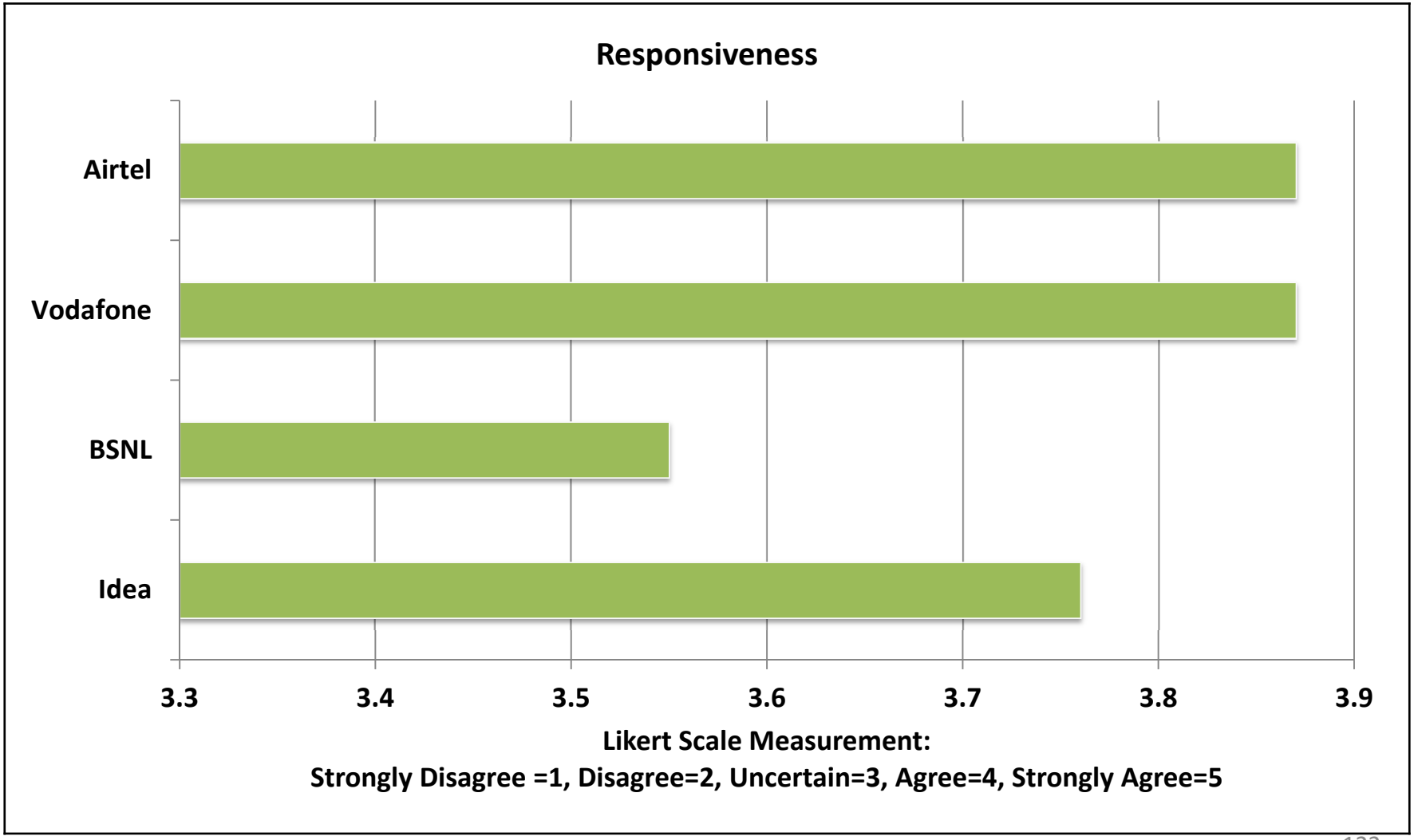
Product Differentiation Strategies…

Variable: Quality of service								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Tangibility	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea.	0.000	Significant Difference between BSNL and Vodafone.	0.000	Significant Difference between BSNL and Airtel.
Responsiveness	0.000		0.000	Idea has the positive product differentiation	0.000	Vodafone has the positive product differentiation	0.000	Airtel has the positive product differentiation
Reliability	0.106	No Significant Difference between BSNL and private sector telecom service providers	0.027	No Significant Difference between BSNL and Idea	0.917	No Significant Difference between BSNL and Vodafone	0.405	No Significant Difference between BSNL and Airtel
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

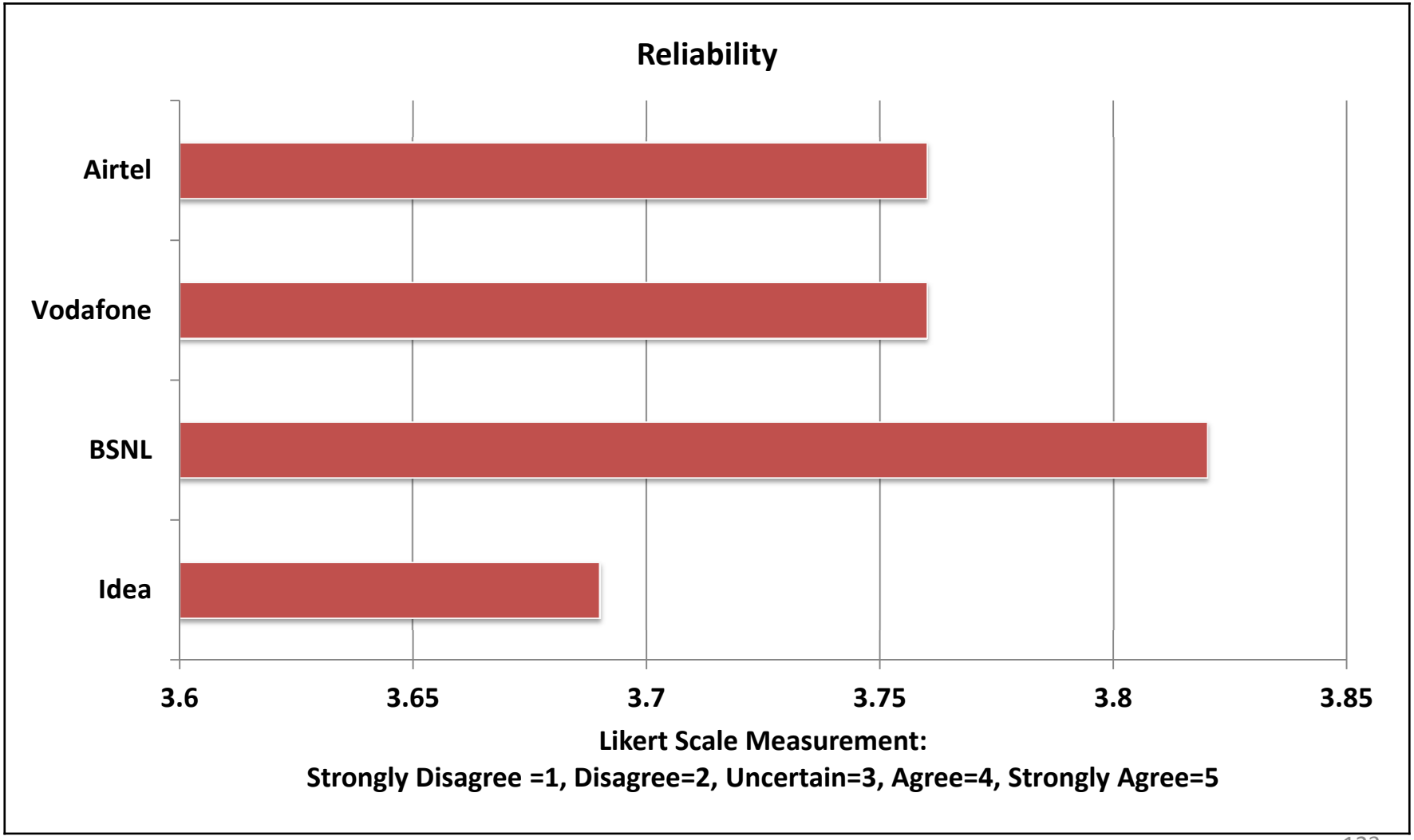
Quality of Service: Tangibility



Quality of Service: Responsiveness



Quality of Service: Reliability

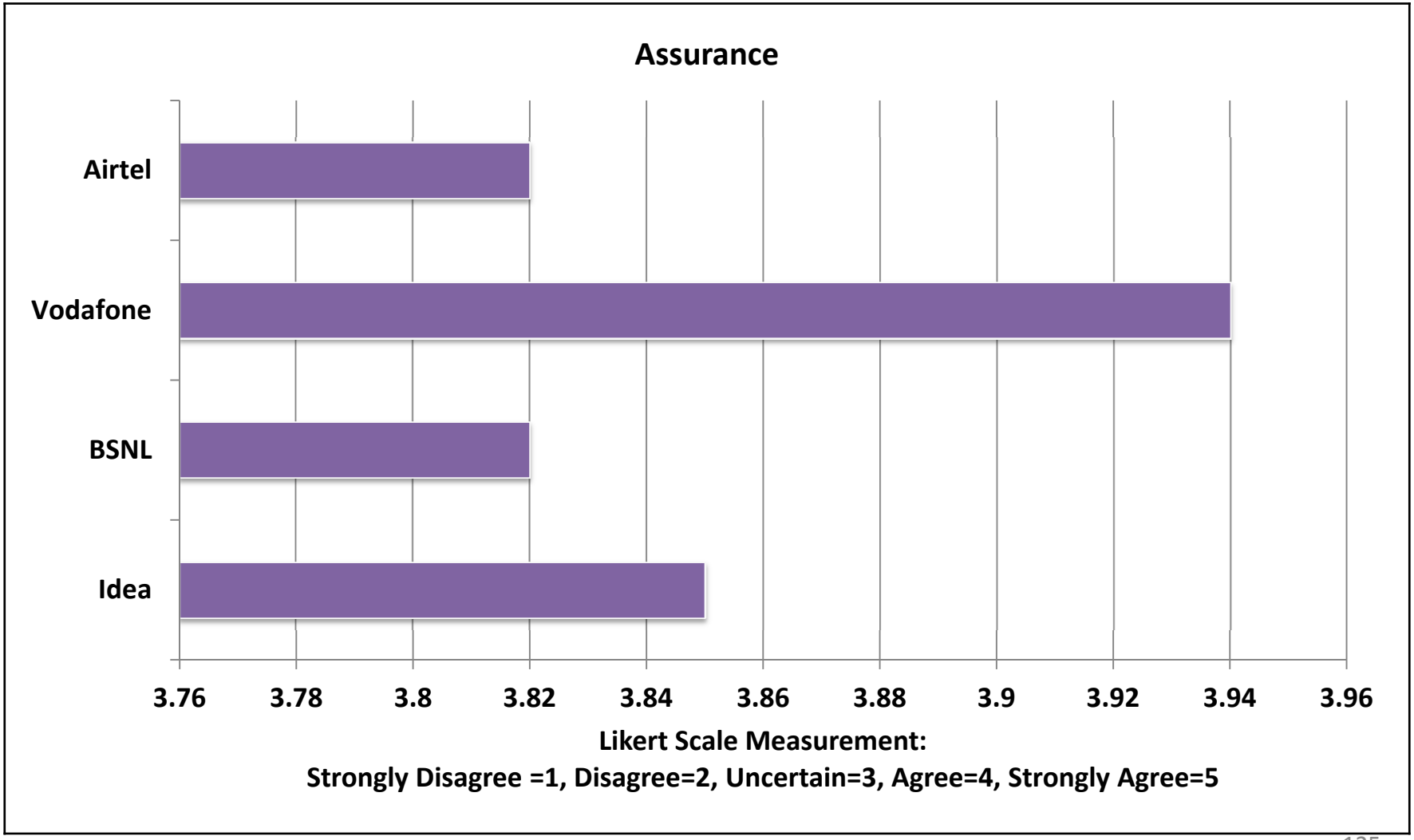


Product Differentiation Strategies…

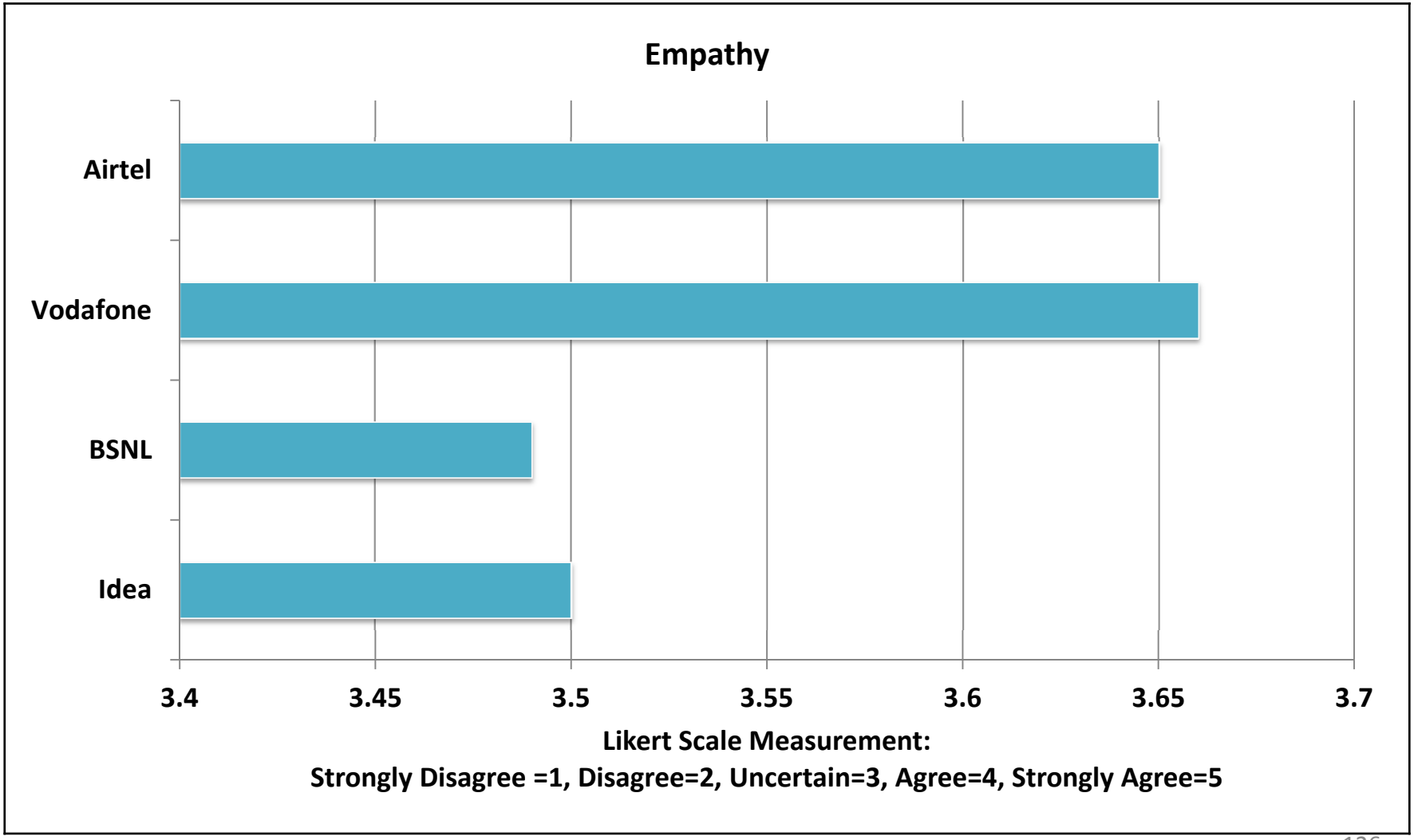
Variable: Quality of service…								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Assurance	0.039	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.698	No Significant Difference between BSNL and Idea	0.022	No Significant Difference between BSNL and Vodafone	0.734	No Significant Difference between BSNL and Airtel
Empathy	0.005		0.838		0.007	Significant Difference between BSNL and Vodafone. Vodafone has the positive product differentiation	0.033	

Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.
Quality of service is measured by using the 22-item SERVQUAL scale developed by Parasuraman A. et al. (1991).

Quality of Service: Assurance



Quality of Service: Empathy

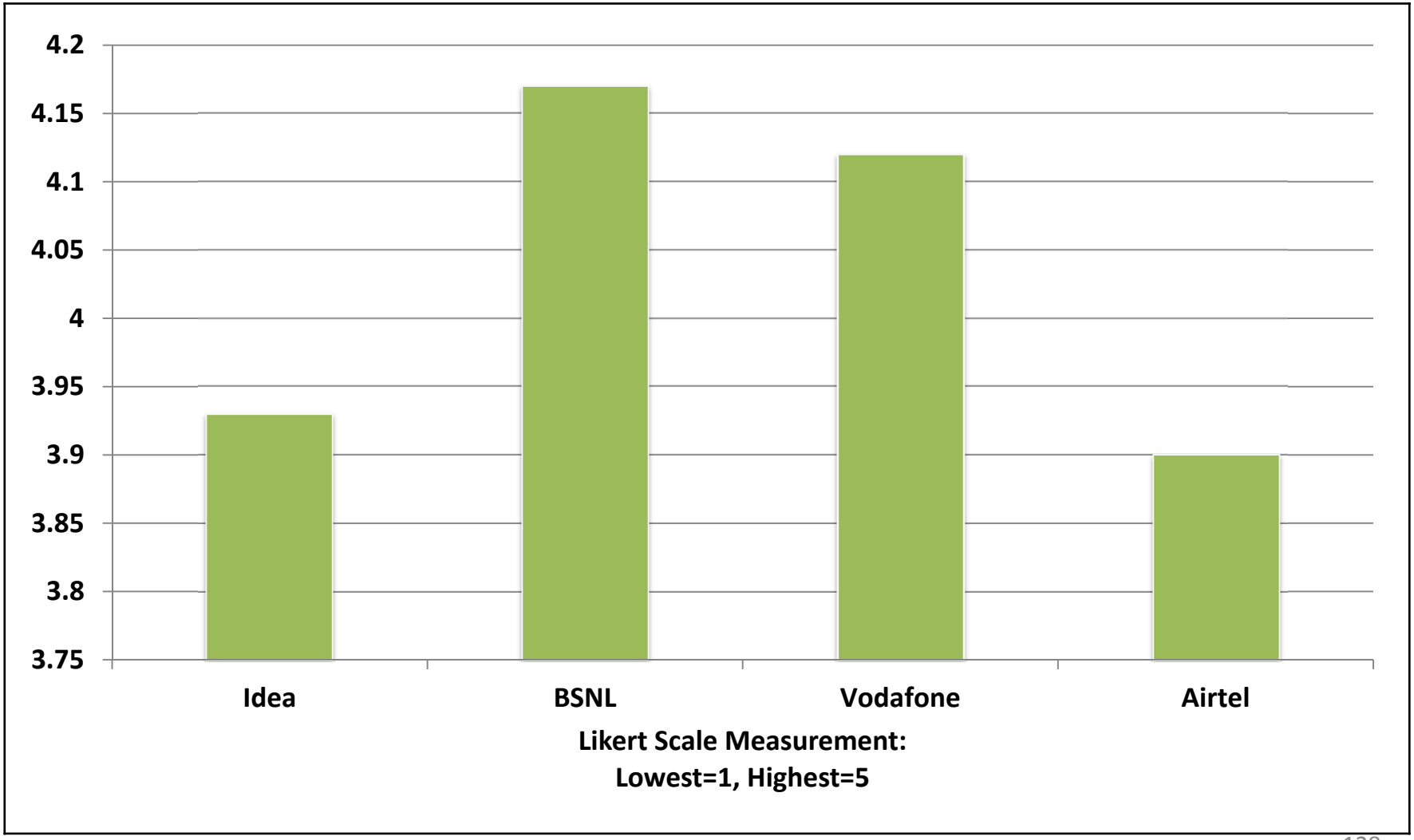


Product Differentiation Strategies…

Variable: Brand value								
Variable	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Brand Value	0.000	Product Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. High Brand value for BSNL than Idea	0.935	No Significant Difference between BSNL and Vodafone	0.000	Significant Difference between BSNL and Airtel. High Brand value for BSNL than Airtel

Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.
The brand value is measured based on the concepts of Young and Rubicam's Brand Asset Valuator (BAV). Model.

Brand Value


4.2
4.15
4.1
4.05
4
3.95
3.9
3.85
3.8
3.75
Idea
BSNL
Vodafone
Airtel
Likert Scale Measurement:
Lowest=1, Highest=5

Pricing Strategies

Hypothesis 2

There is significant difference between the pricing strategies of BSNL and private sector mobile telecom service providers in Kerala.

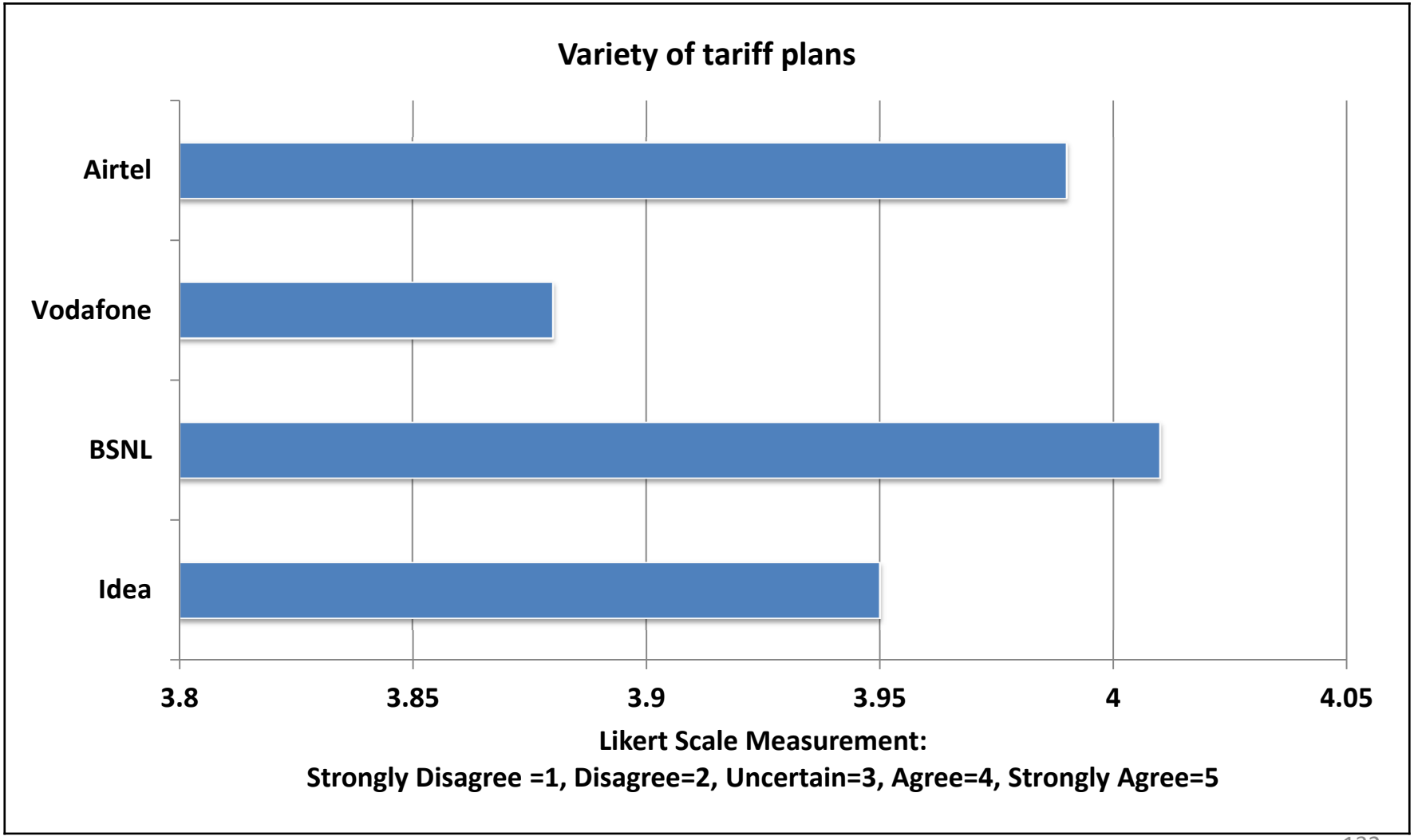
Pricing Strategies…

Variables	Items
Tariff variety	(i) Variety of tariff plans (ii) Easiness to switch between tariff plans (iii) Convenient recharge options for prepaid customers (iv) Advise suitable tariff plans
Competitive pricing	(i) Better pricing as compared to others (ii) Better offers as compared to others (iii) Value for money spends
Ethical pricing practices	(i) Transparent billing and no hidden charges (ii) Ethical pricing practices (iii) Easiness to deactivate additional services - if required

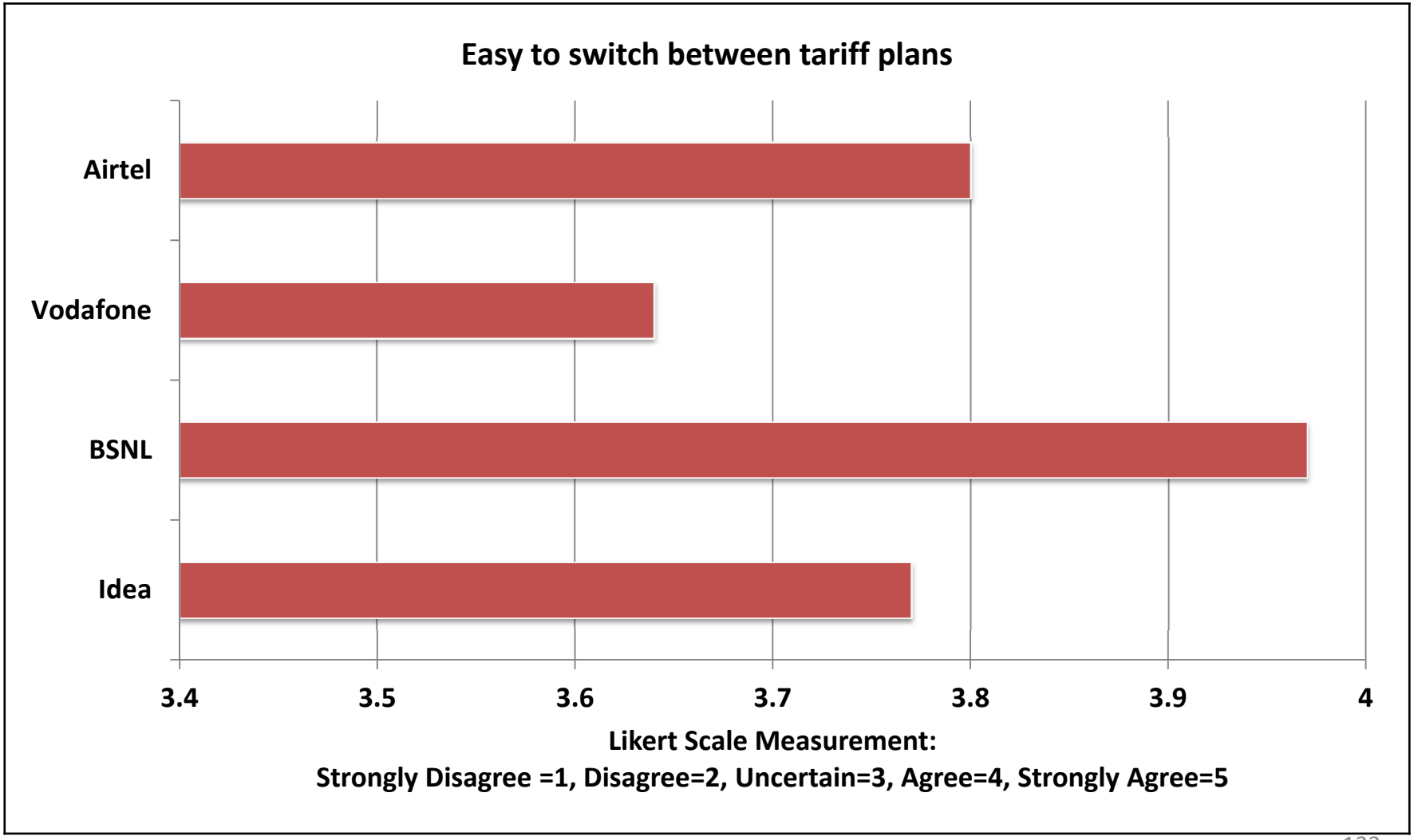
Pricing Strategies…

Variable: Tariff variety offered to pre-paid customers								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Variety of tariff plans	0.105	No Significant Difference between BSNL and private sector telecom service providers	0.146	No Significant Difference between BSNL and Idea	0.022	No Significant Difference between BSNL and Vodafone	0.665	No Significant Difference between BSNL and Airtel
Easy to switch over tariff plans	0.000	Pricing Differentiation is Significant between BSNL and private sector telecom service providers	0.001	Significant Difference between BSNL and Idea. BSNL has the positive pricing differentiation	0.000	Significant Difference between BSNL and Vodafone. BSNL has the positive pricing differentiation	0.054	
Convenient recharge options available	0.000		0.000	Significant Difference between BSNL and Idea. Idea has the positive pricing differentiation	0.000	Significant Difference between BSNL and Vodafone. Vodafone has the positive pricing differentiation	0.000	Significant Difference between BSNL and Airtel. Airtel has the positive pricing differentiation
Advises suitable tariff plans	0.000		0.000		0.000		0.000	
Grouping Variable: Mobile Service Provider, N=766, BSNL – 230, Idea – 229, Vodafone – 200, Airtel – 107.								

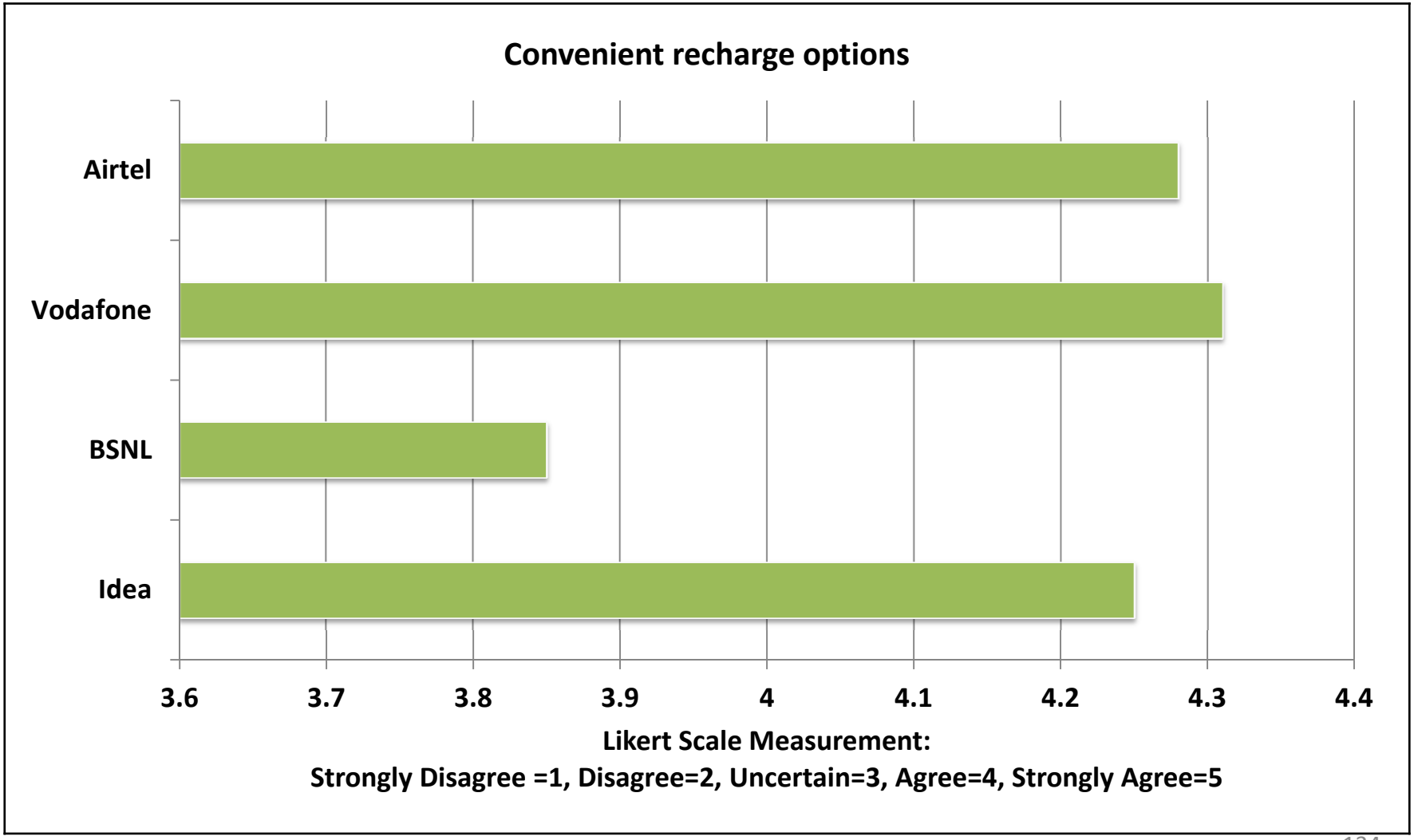
Variety of tariff plans: Prepaid



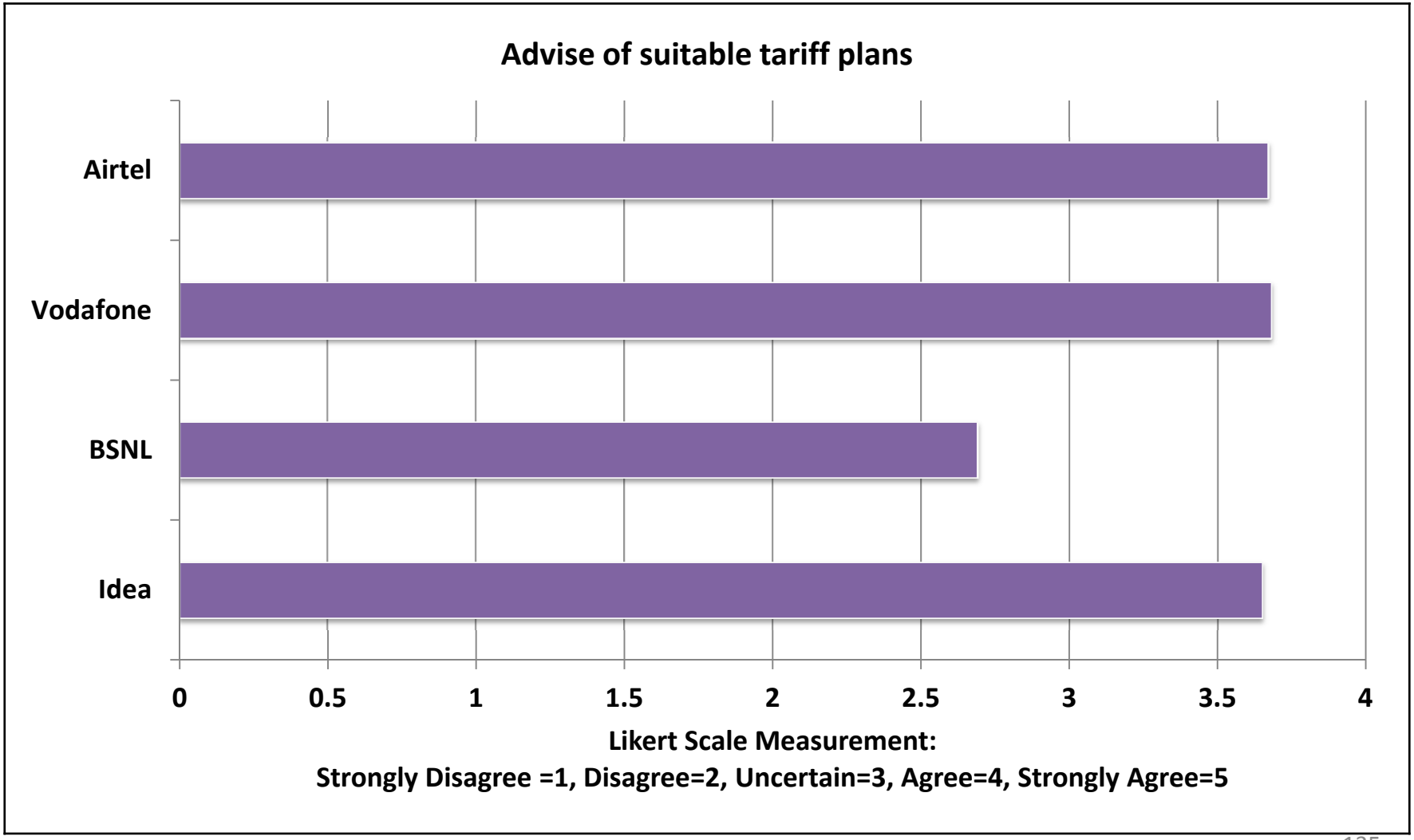
Easy to switch over tariff plans: Prepaid



Convenient recharge options available: Prepaid



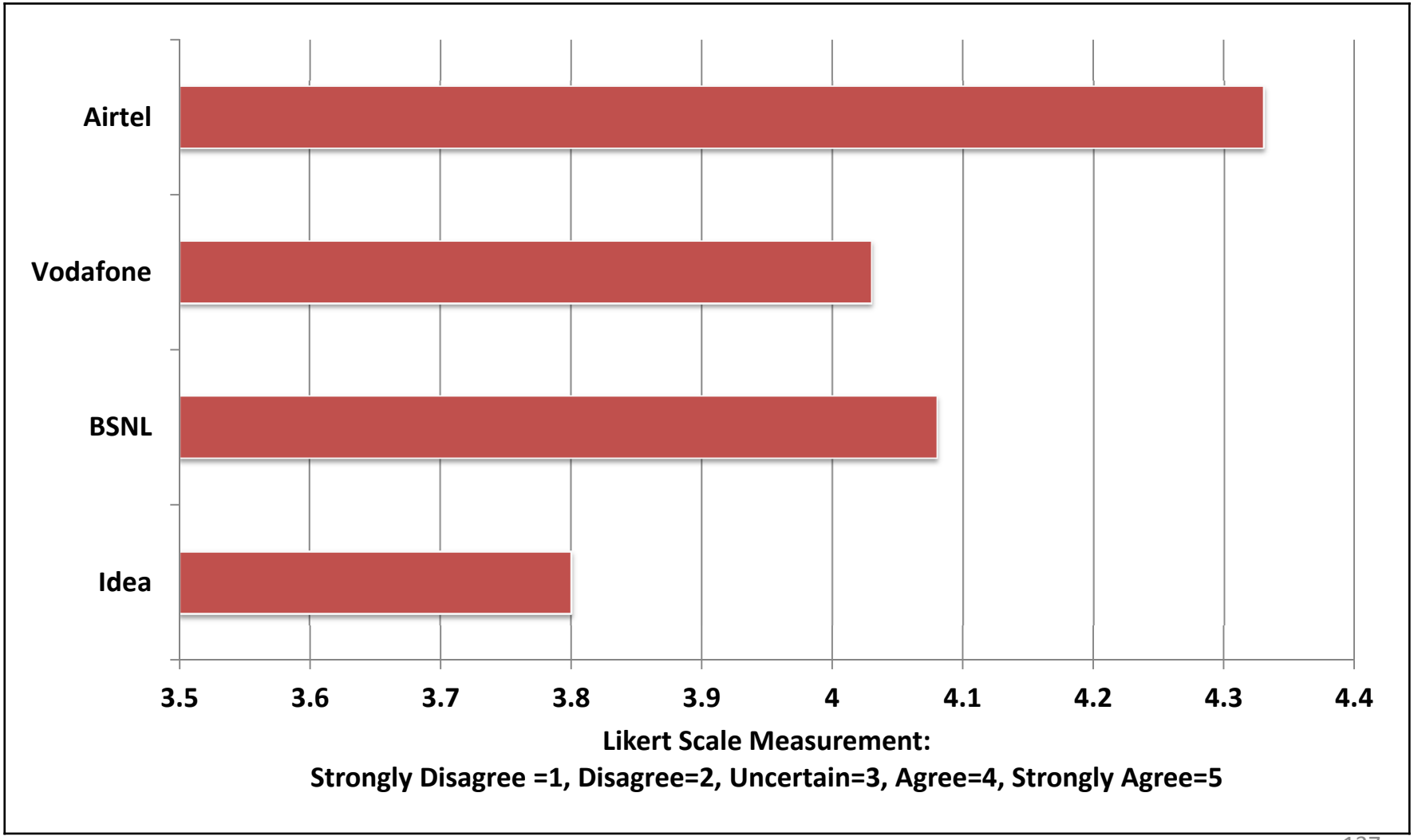
Advises suitable tariff plans: Prepaid



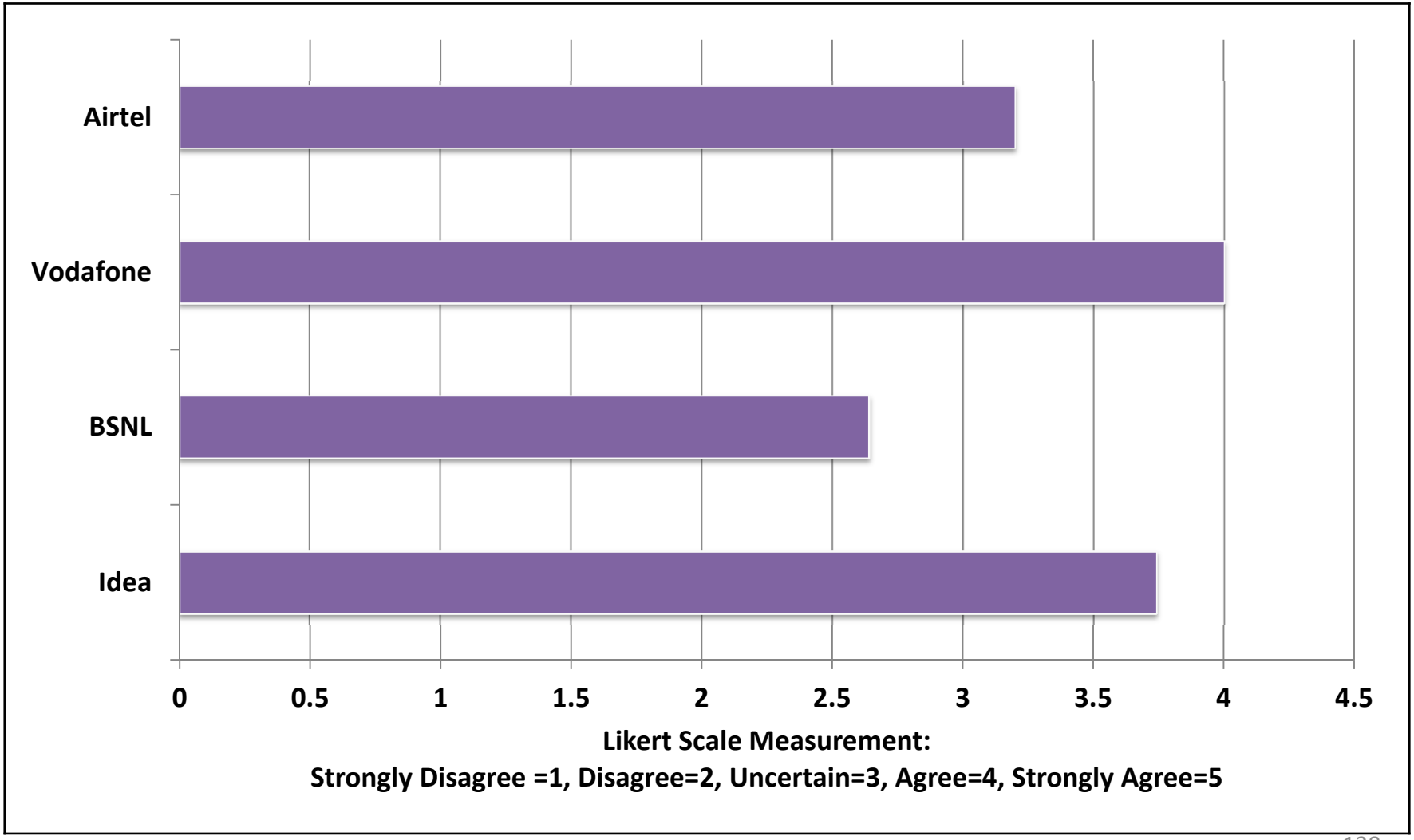
Pricing Strategies…

Variable: Tariff variety offered to post-paid customers								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Variety of tariff plans	0.029	Pricing Differentiation is Significant between BSNL and private sector telecom service providers	0.054	No Significant Difference between BSNL and Idea	0.791	No Significant Difference between BSNL and Vodafone	0.140	No Significant Difference between BSNL and Airtel
Advises suitable tariff plans	0.000		0.000	Significant Difference between BSNL and Idea. Idea has the positive pricing differentiation	0.000	Significant Difference between BSNL and Vodafone. Vodafone has the positive pricing differentiation	0.035	
Easy to switch over tariff plans	0.521	No Significant Difference between BSNL and private sector telecom service providers	0.480	No Significant Difference between BSNL and Idea	0.595	No Significant Difference between BSNL and Vodafone	0.513	
Grouping Variable: Mobile Service Provider, N=104, BSNL – 25, Idea – 35, Vodafone – 29, Airtel – 15.								

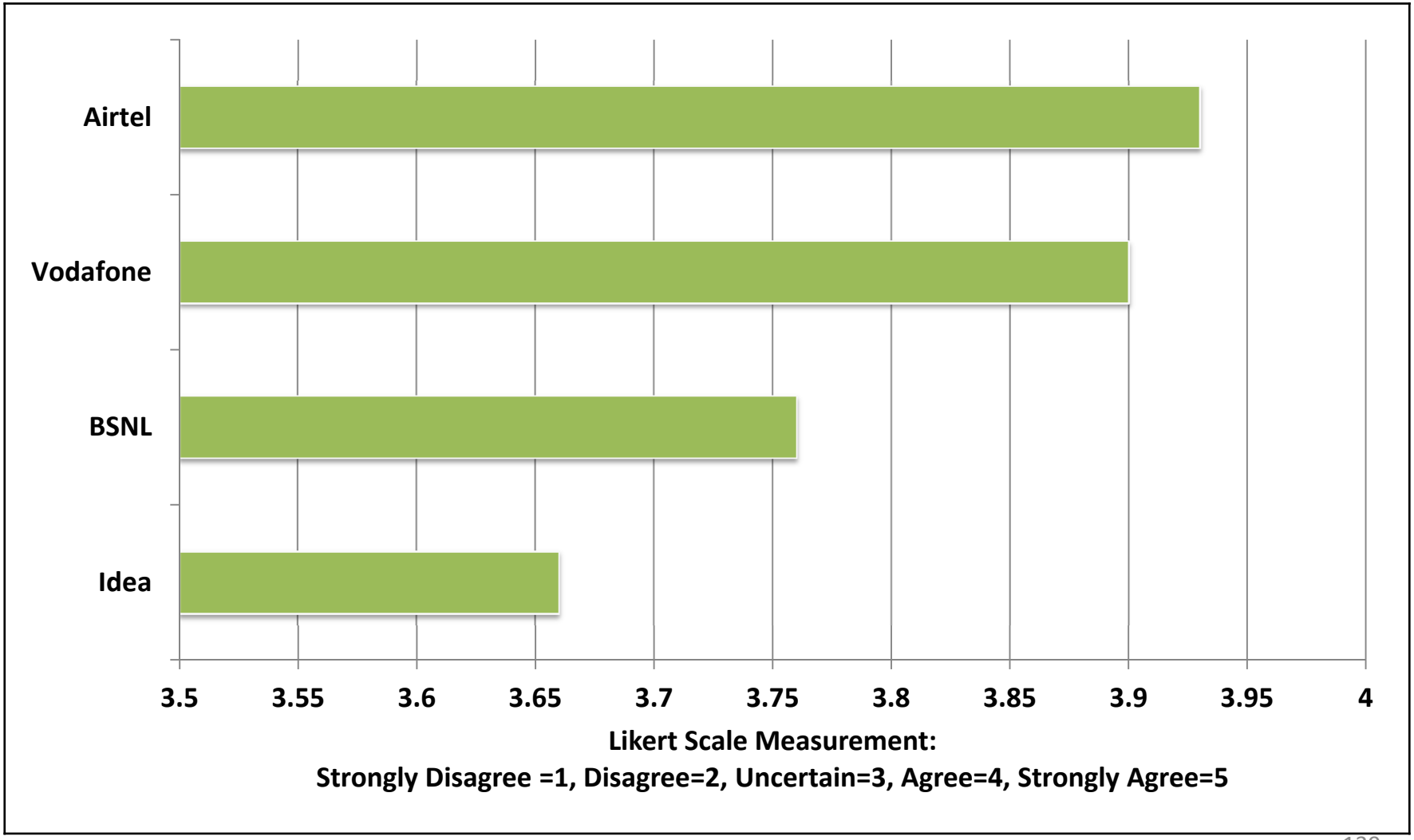
Variety of tariff plans: Postpaid



Advises suitable tariff plans: Postpaid



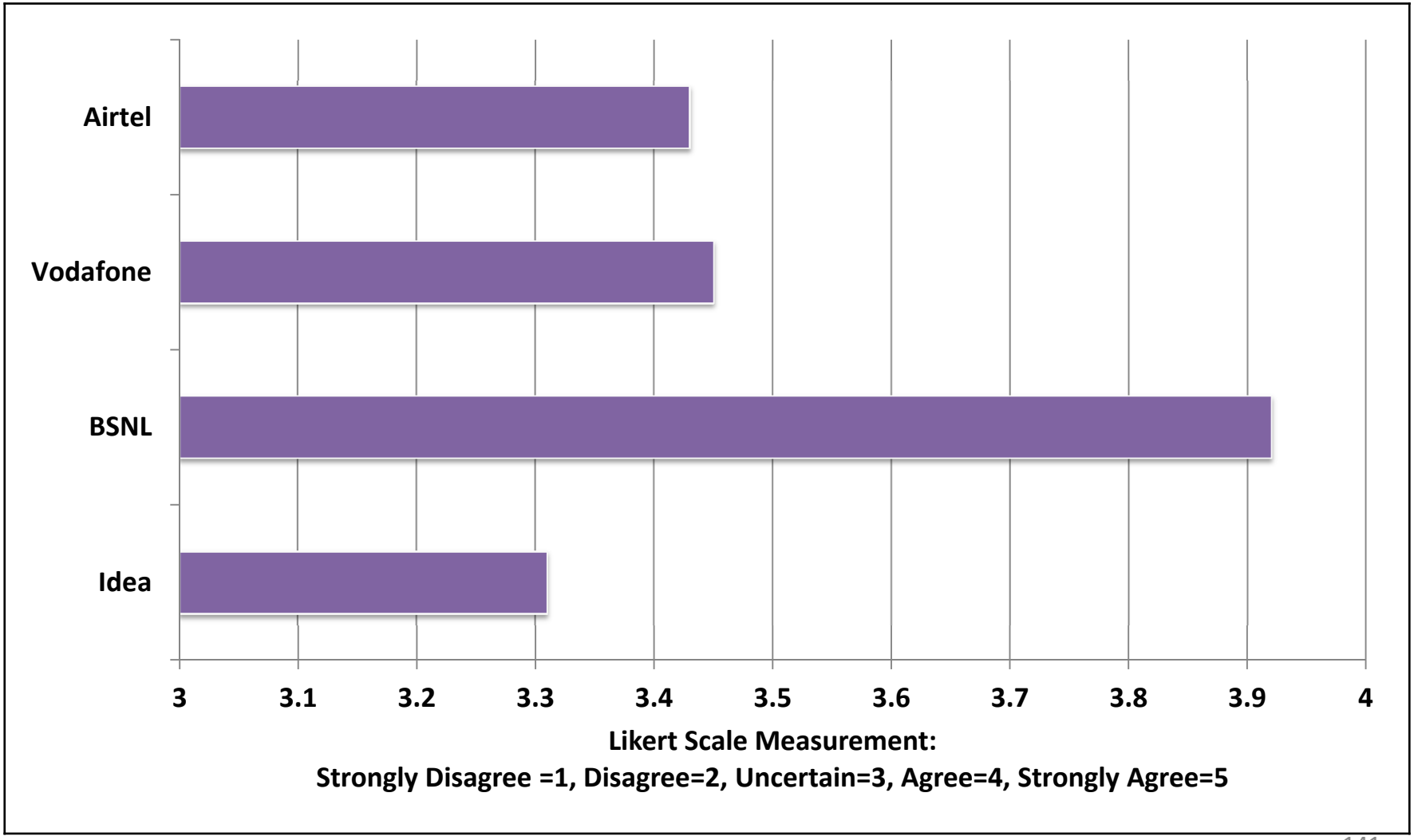
Easy to switch over tariff plans: Postpaid



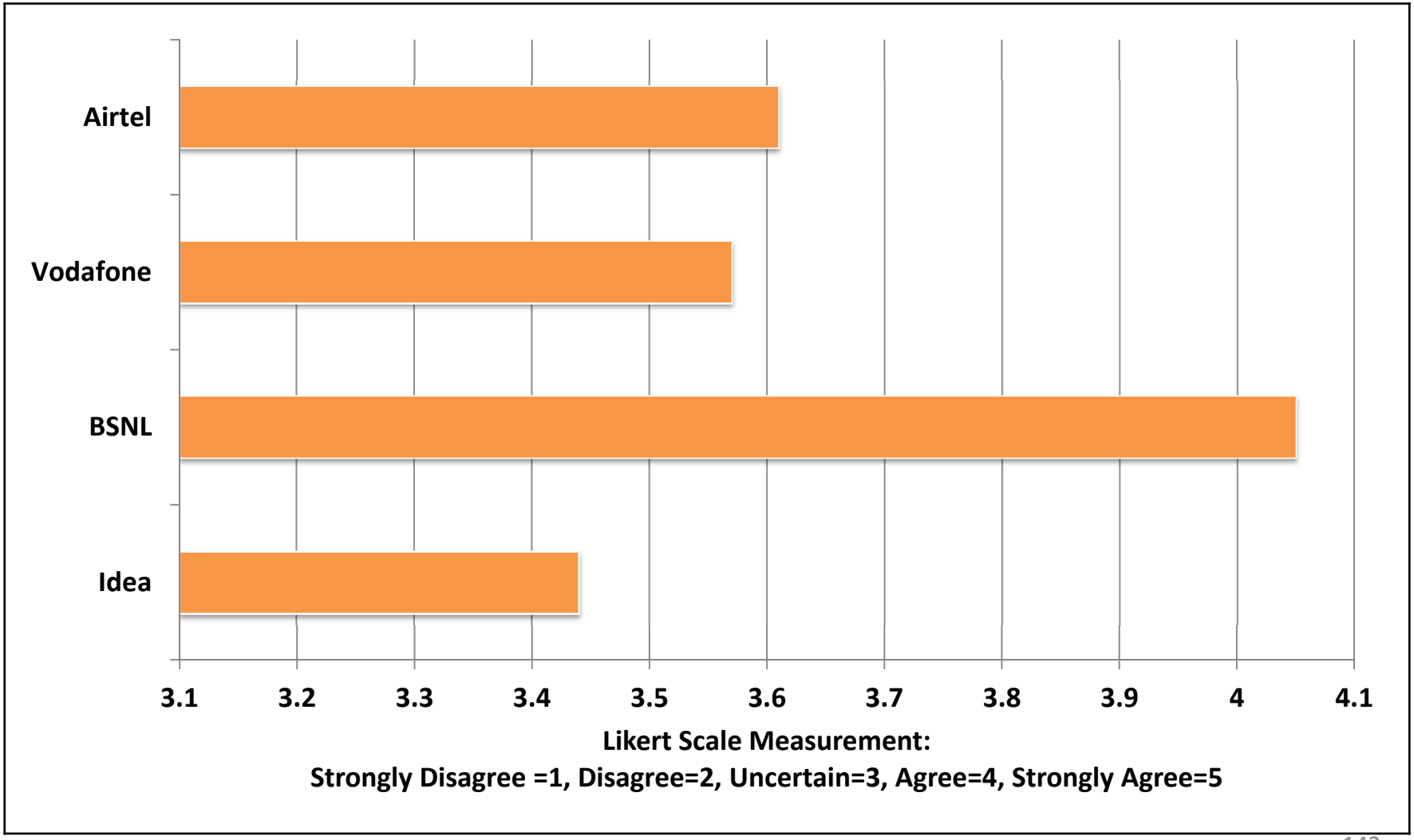
Pricing Strategies…

Variable: Competitive pricing								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Better pricing as compared to others	0.000	Pricing Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. BSNL has the positive pricing differentiation	0.000	Significant Difference between BSNL and Vodafone. BSNL has the positive pricing differentiation	0.000	Significant Difference between BSNL and Airtel. BSNL has the positive pricing differentiation
Value for money spends	0.000		0.000		0.000		0.000	
Better offers as compared to others	0.030		0.064	No Significant Difference between BSNL and Idea	0.054	No Significant Difference between BSNL and Vodafone	0.008	Significant Difference between BSNL and Airtel. Airtel has the positive pricing differentiation
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

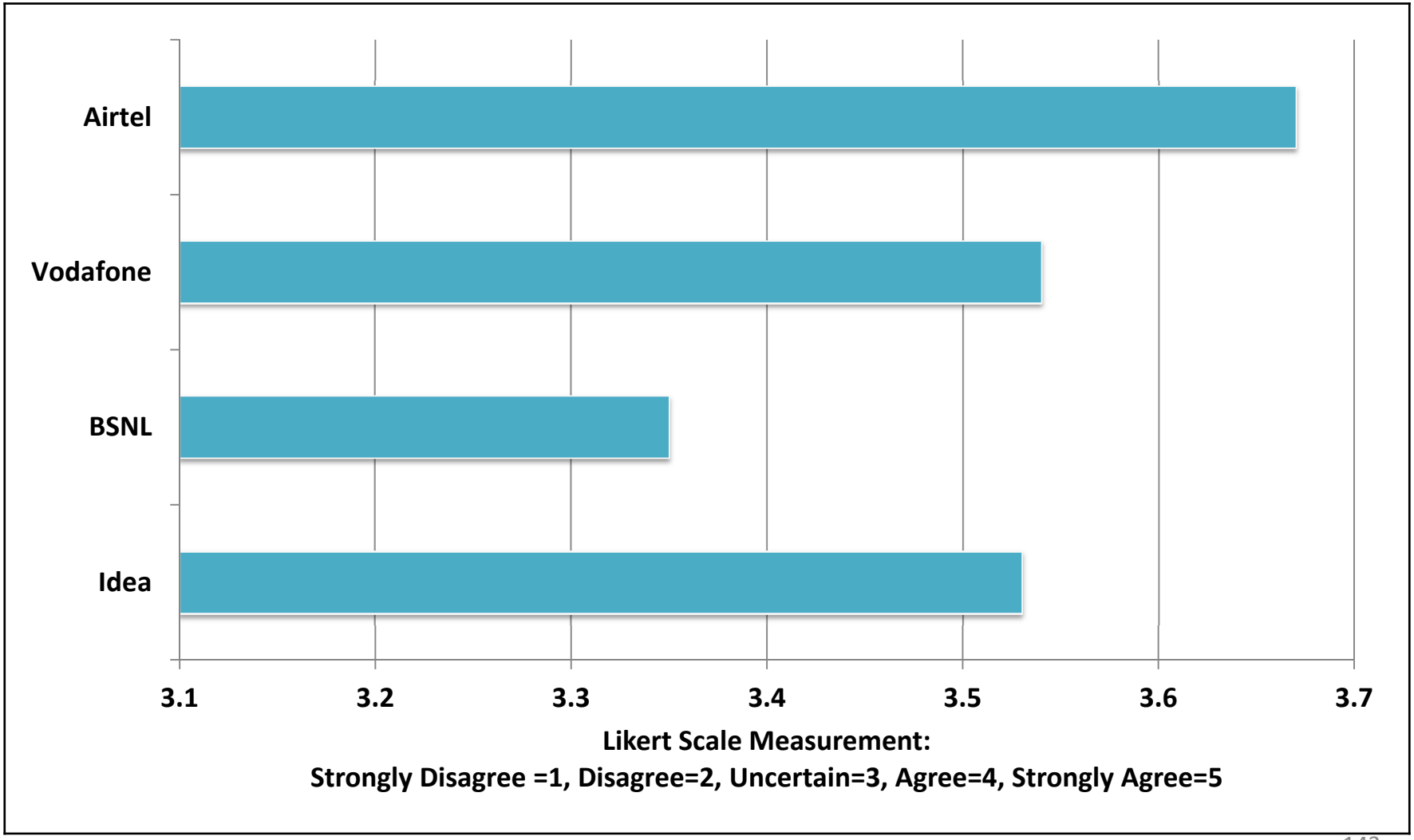
Better pricing as compared to others



Value for money spends



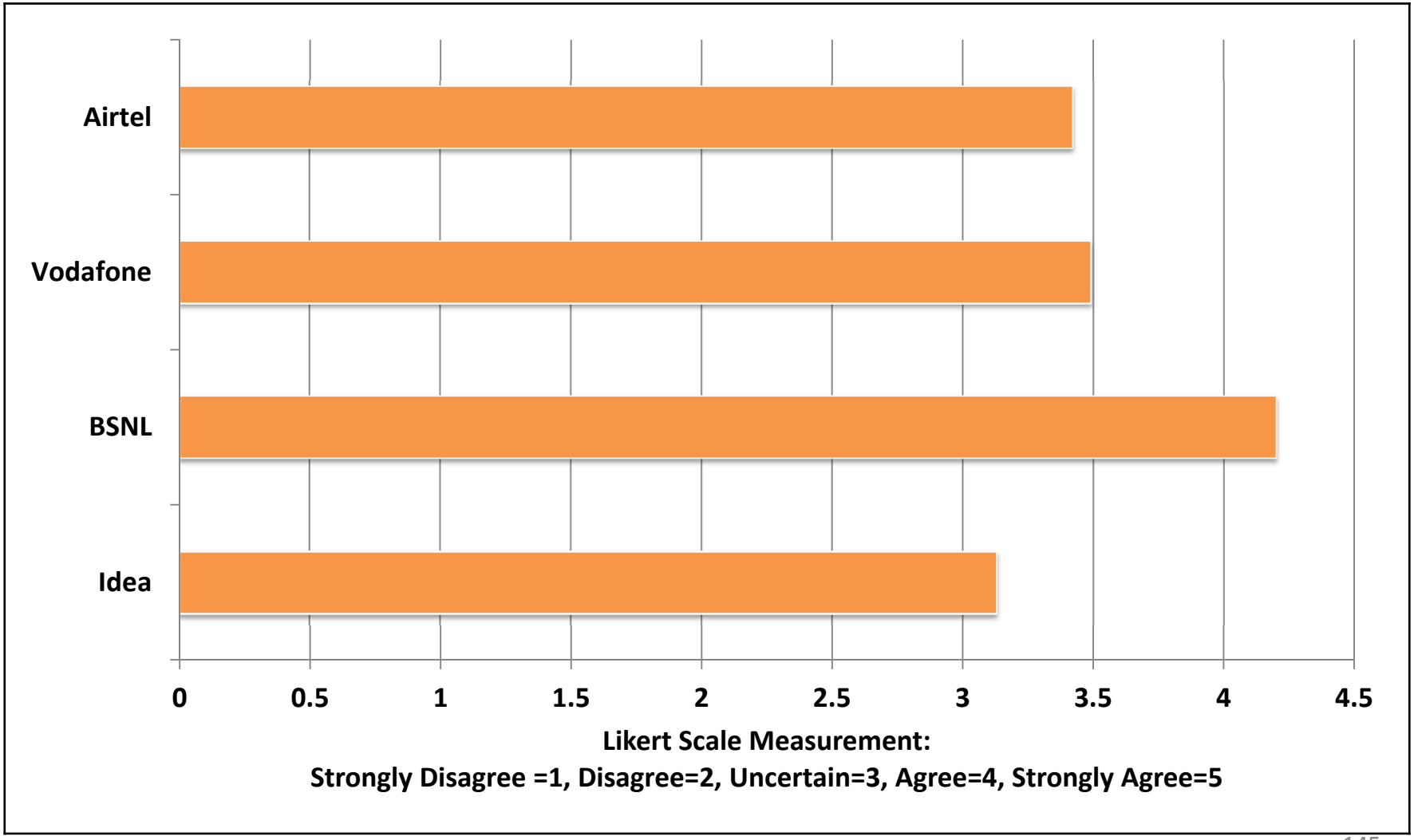
Better offers as compared to others



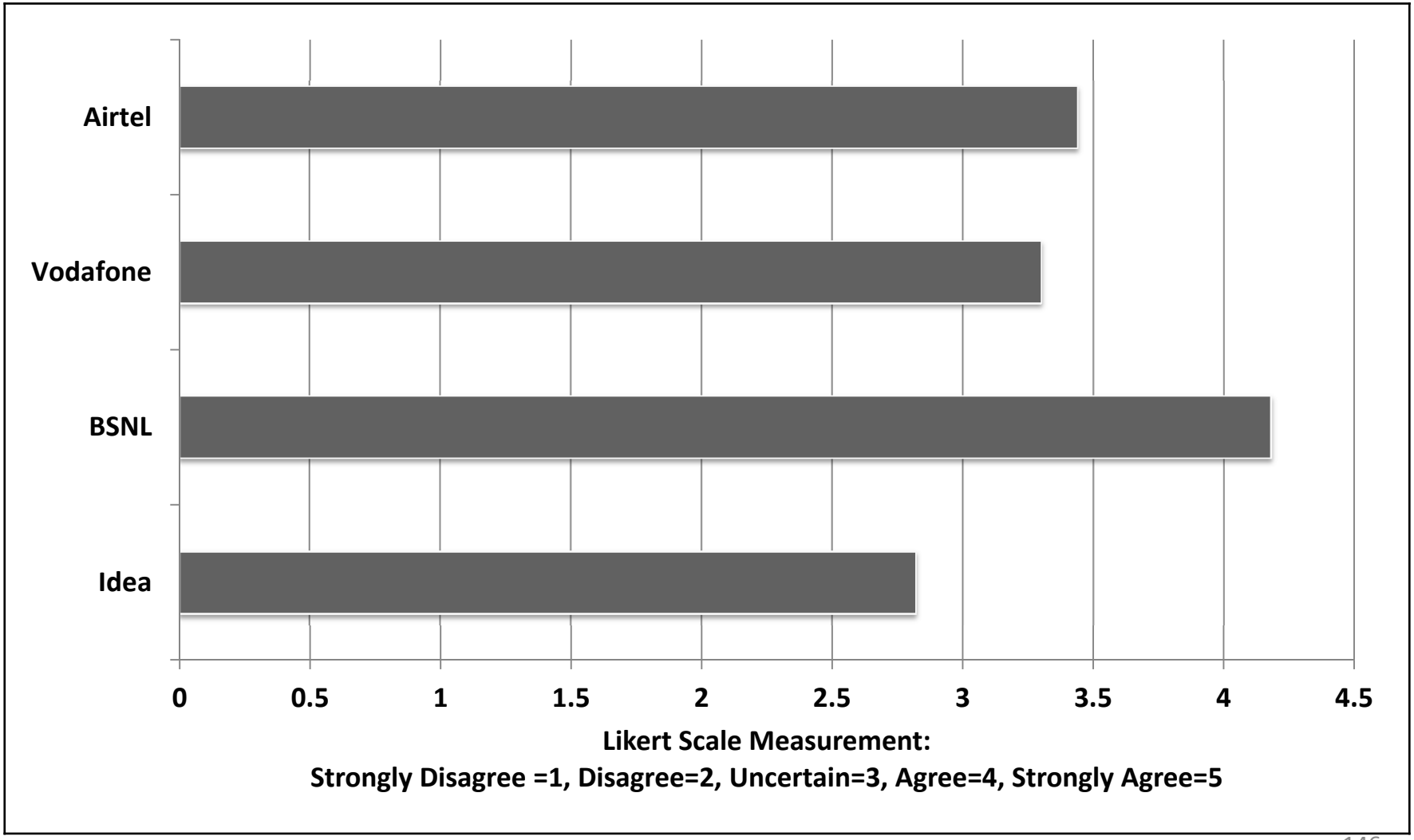
Pricing strategies…

Variable: Ethical pricing practices								
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Post hoc procedures. Mann-Whitney U test					
			BSNL and Idea - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Vodafone - Significance Value (∞=0.0167)	Hypothesis Test Results	BSNL and Airtel - Significance Value (∞=0.0167)	Hypothesis Test Results
Transparent billing and no hidden charges	0.000	Pricing Differentiation is Significant between BSNL and private sector telecom service providers	0.000	Significant Difference between BSNL and Idea. BSNL has the positive pricing differentiation	0.000	Significant Difference between BSNL and Vodafone. BSNL has the positive pricing differentiation	0.000	Significant Difference between BSNL and Airtel. BSNL has the positive pricing differentiation
Ethical pricing practices	0.000		0.000		0.000		0.000	
Easiness to deactivate additional services - if required	0.000		0.001		0.579	No Significant Difference between BSNL and Vodafone	0.549	No Significant Difference between BSNL and Airtel.
Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.								

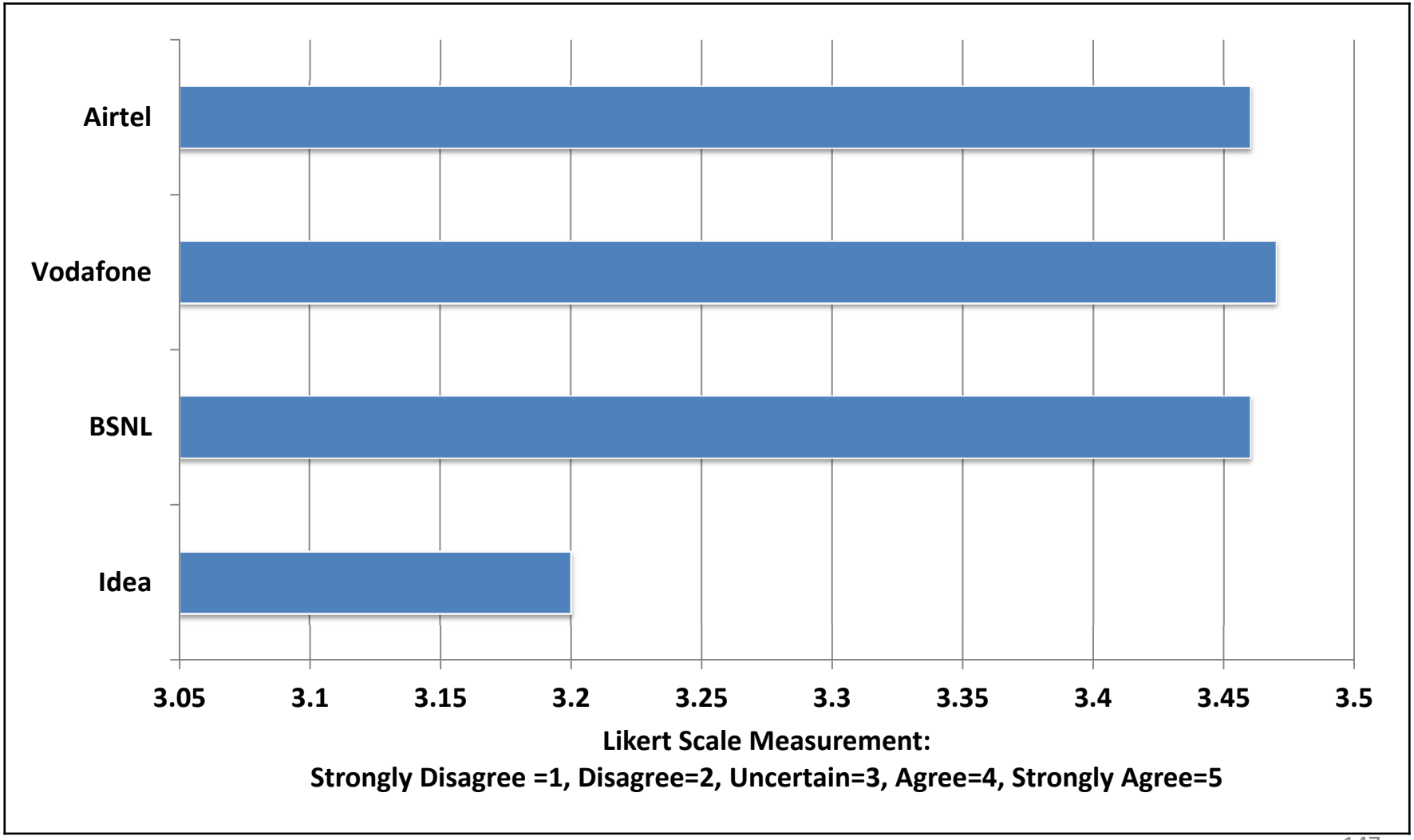
Transparent billing and no hidden charges



Ethical pricing practices



Easiness to deactivate additional services - if required



Promotion Strategies

Hypothesis 3

There is significant difference between the promotion strategies of BSNL and private sector mobile telecom service providers in Kerala.

Promotion Strategies…

Variables	Items
Effectiveness of advertisements	The effectiveness of advertisements of mobile telecom service providers is measured based on the model for predictive measurements of advertising effectiveness proposed by Robert J. Lavidge and Grey A. Steiner (1961). Rooted in this model following four items are formulated. (i) The messages conveyed through the advertisements are highly informative. (ii) The advertisements create liking, preference and faith for the service provider. (iii) The advertisements act as reminder to stimulate repeat association with the service provider. (iv) The advertisements convince me that my decision to continue with the service provider is a right choice.

Promotion Strategies…

Variables	Measurement
(i) Attractiveness of website of mobile telecom service providers (ii) Attractiveness of free trial offers (iii) Attractiveness of free add-on SIM card offer (iv) Attractiveness of extra talk time offer (v) Attractiveness of SMS package offer (vi) Attractiveness of internet package offer (vii) Attractiveness of call at zero balance offer for prepaid customers (viii) Attractiveness of getting the service at bill not paid status (post-paid customers) of mobile telecom service providers (ix) Attractiveness of customized offers (x) Opinion of respondents about promotional phone calls	The attractiveness of website and promotional offers are measured by a dichotomous question to verify whether the customer has visited the website or received any offer. It is followed by five point Likert scale to measure the attractiveness of the offer.

Effectiveness of advertisements

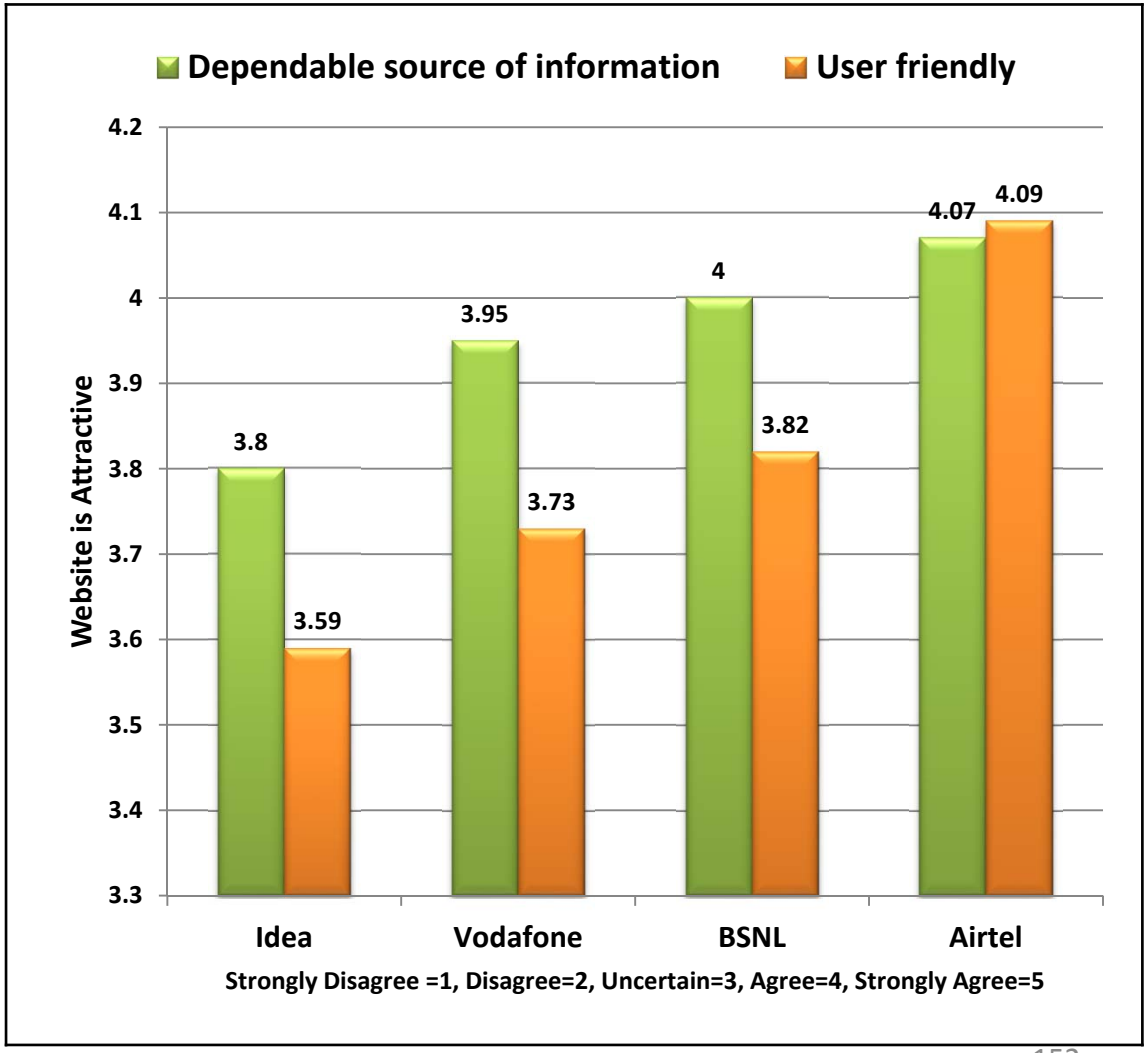
Variable	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Mobile Service Provider	Mean*	Std. Dev.
Effectiveness of advertisements	0.000	Effectiveness of advertisements is Significantly different between BSNL and private sector telecom service providers	Idea	3.87	.768
			BSNL	2.72	.743
			Vodafone	4.03	.805
			Airtel	3.65	.706
			Total	3.54	.935

* Measured on a 5-point Likert Scale (Positive extreme = 5 and negative extreme = 1), based on the model for predictive measurements of advertising effectiveness proposed by Robert J. Lavidge and Grey A. Steiner (1961)

Grouping Variable: Mobile Service Provider, N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.

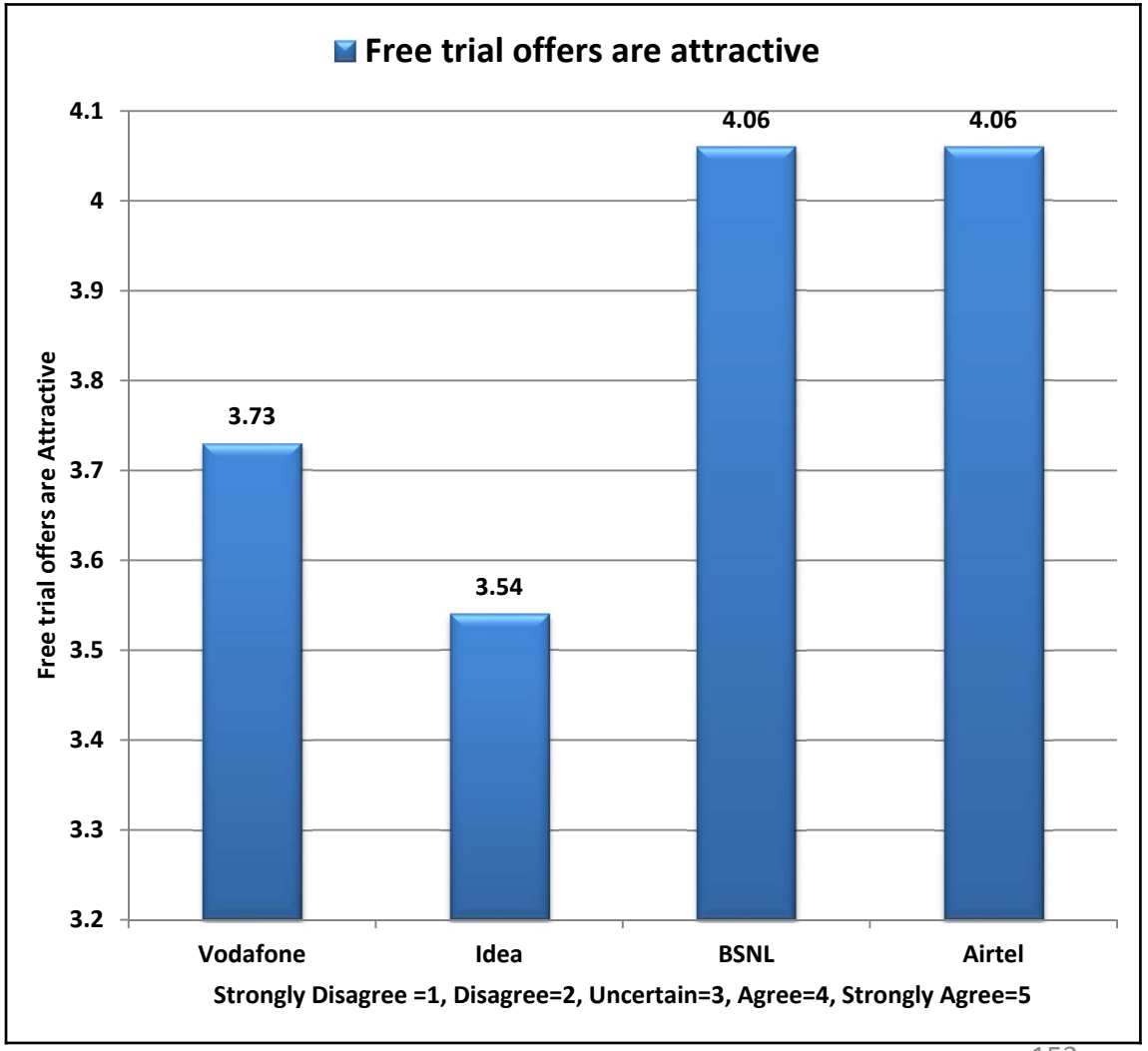
Attractiveness of website

Mobile Service Provider	Visited the Website of the Service Provider ?	
	Yes	No
Airtel	36.10 %	63.90 %
BSNL	32.90 %	67.10 %
Idea	28.00 %	72.00 %
Vodafone	26.20 %	73.8 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



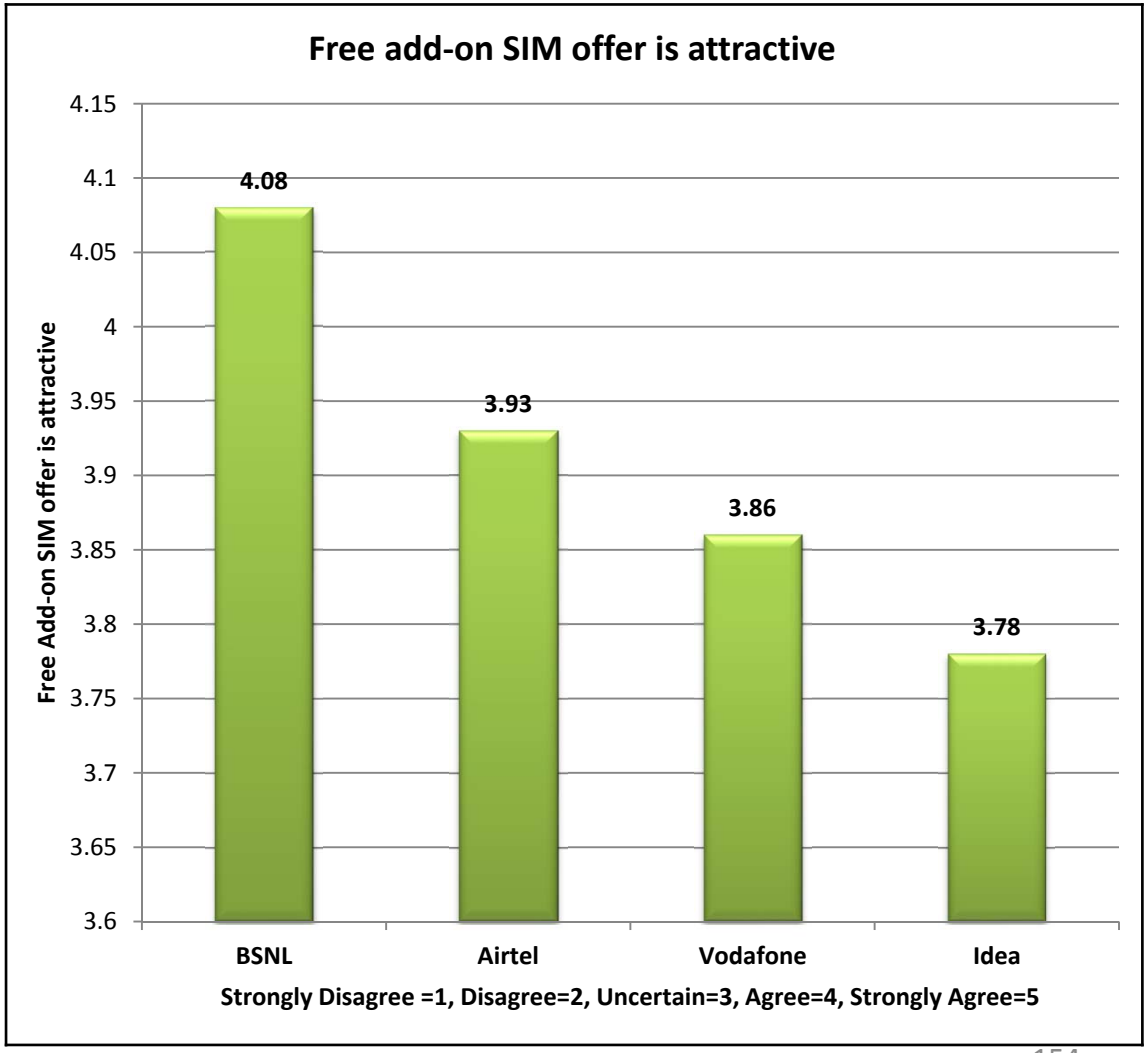
Attractiveness of free trail offers

Mobile Service Provider	Free trail offers received ?	
	Yes	No
BSNL	12.90 %	87.10 %
Airtel	25.40 %	74.60 %
Idea	26.10 %	73.90 %
Vodafone	27.90 %	72.10 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



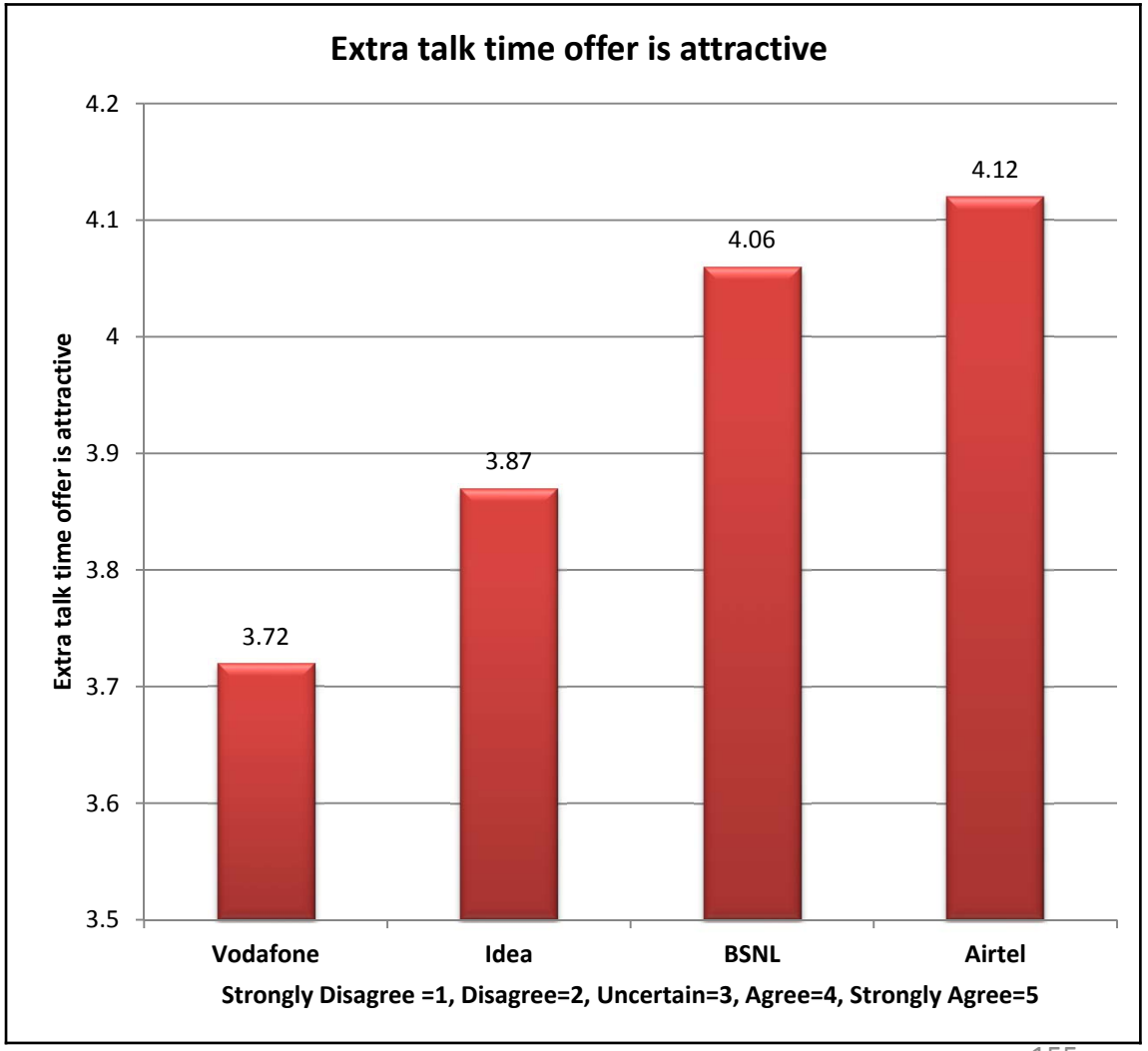
Attractiveness of Free Add-on SIM

Mobile Service Provider	Free Add-on SIM received ?	
	Yes	No
BSNL	23.90 %	76.10 %
Airtel	11.50 %	88.50 %
Vodafone	9.20 %	90.80 %
Idea	8.70 %	91.30 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



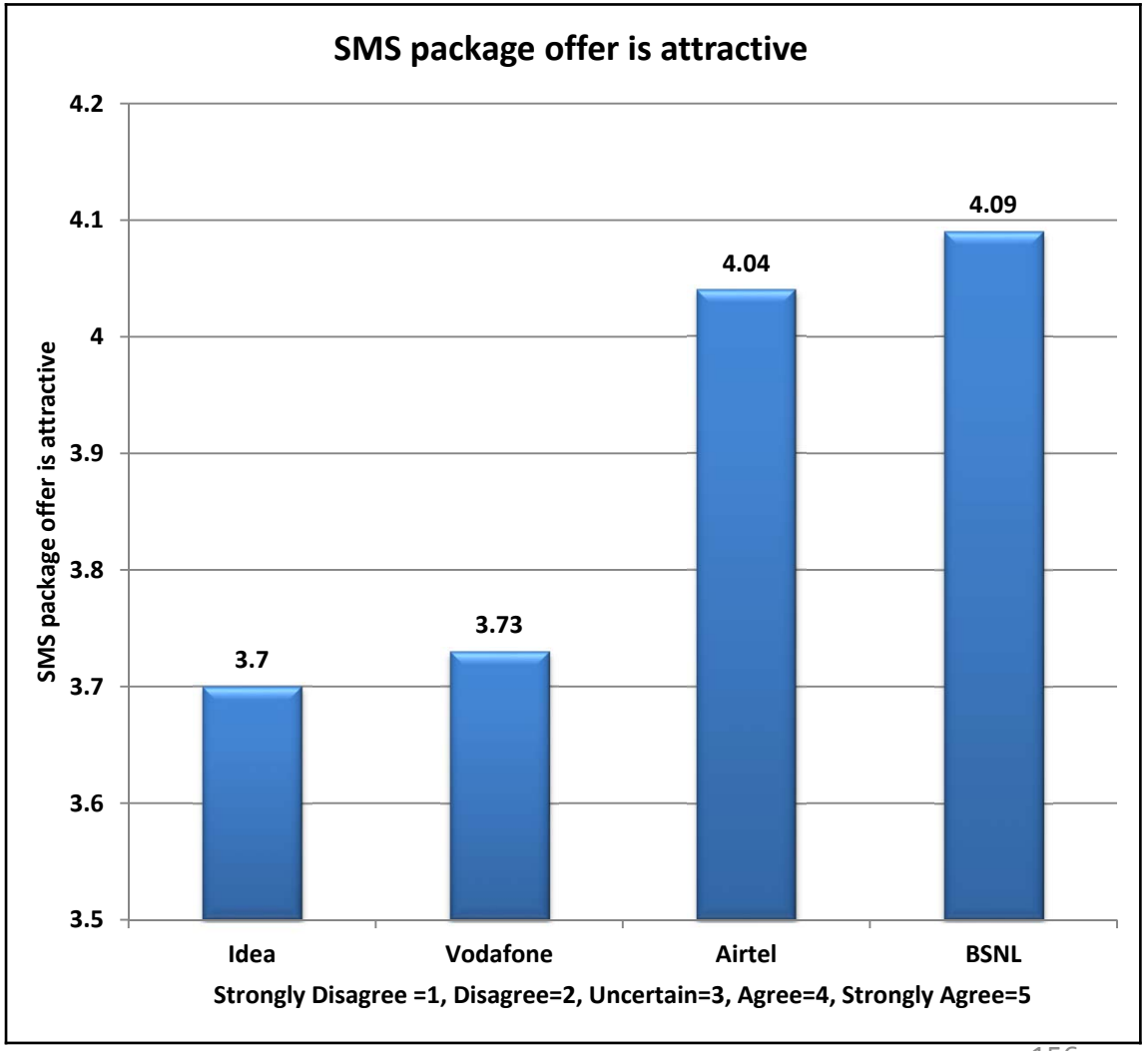
Attractiveness of Extra talk time offer

Mobile Service Provider	Extra talk time offer received ?	
	Yes	No
BSNL	63.10 %	36.90 %
Vodafone	63.30 %	36.70 %
Idea	64.40 %	35.60 %
Airtel	66.40 %	33.60 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



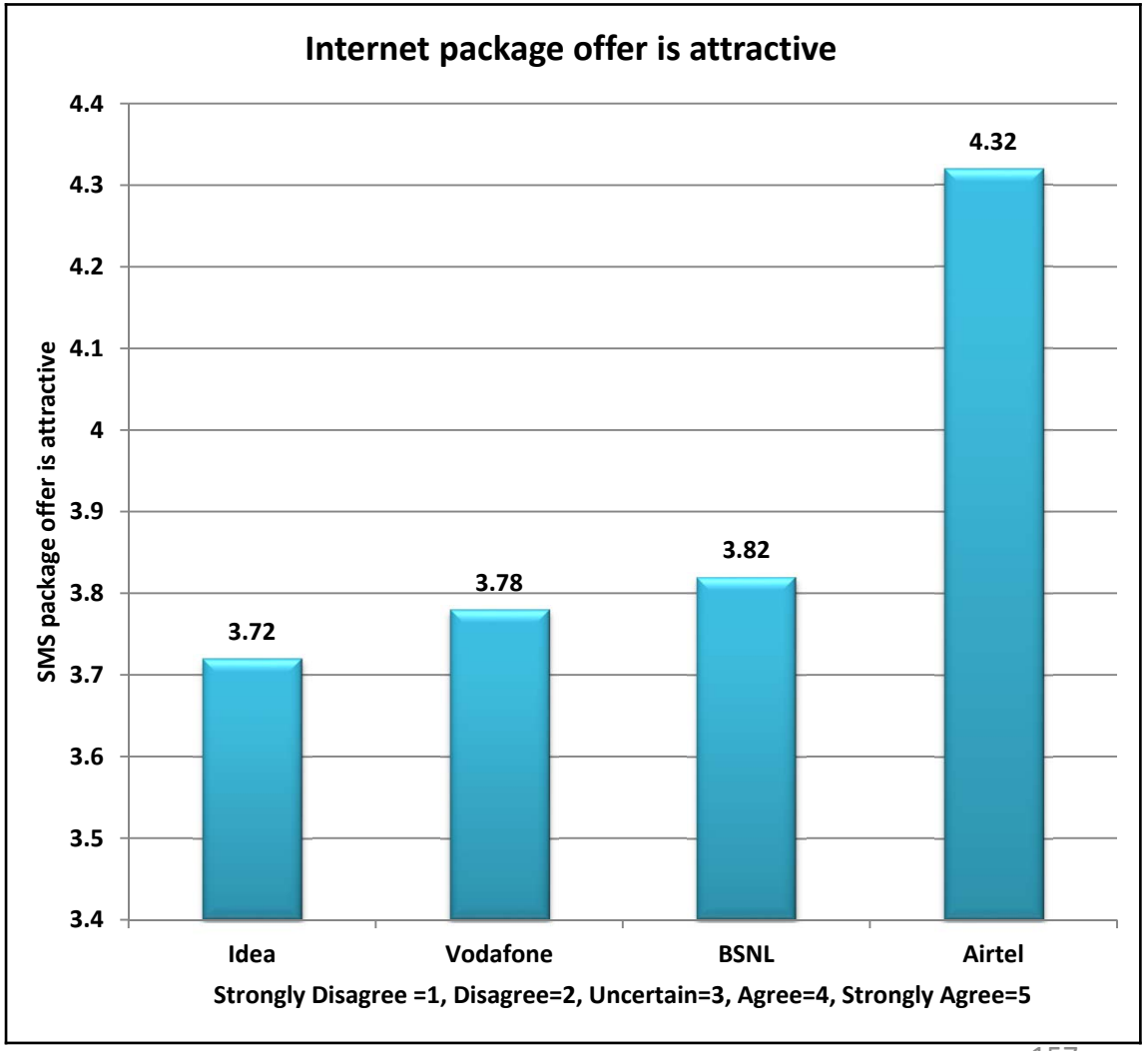
Attractiveness of SMS package offer

Mobile Service Provider	SMS package offer received ?	
	Yes	No
BSNL	18.00 %	82.00 %
Idea	28.00 %	72.00 %
Vodafone	33.60 %	66.40 %
Airtel	41.00 %	59.00 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



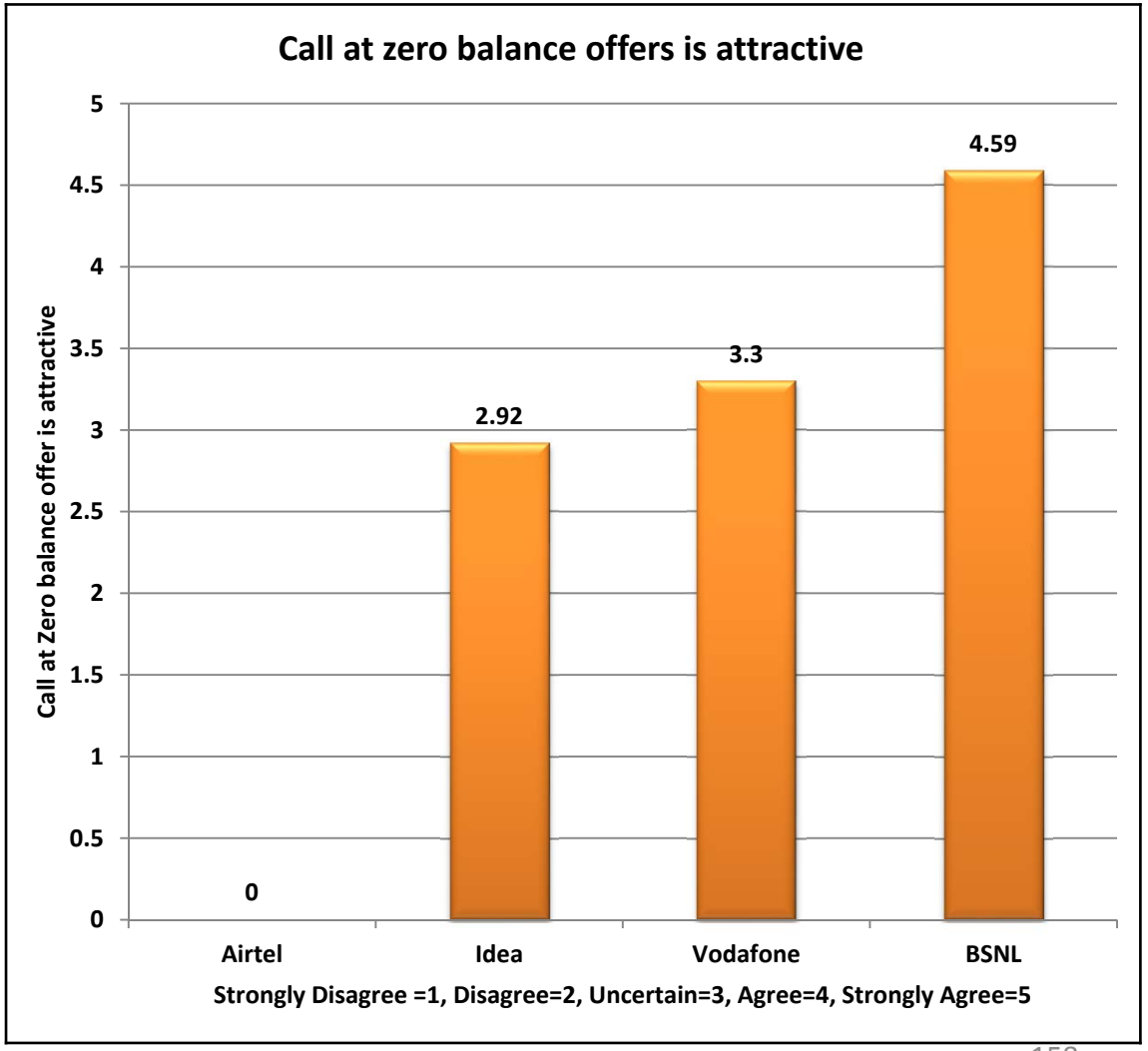
Attractiveness of Internet package offer

Mobile Service Provider	Internet package offer received ?	
	Yes	No
BSNL	23.90 %	76.10 %
Vodafone	40.60 %	59.40 %
Idea	41.30 %	58.70 %
Airtel	56.60 %	43.40 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



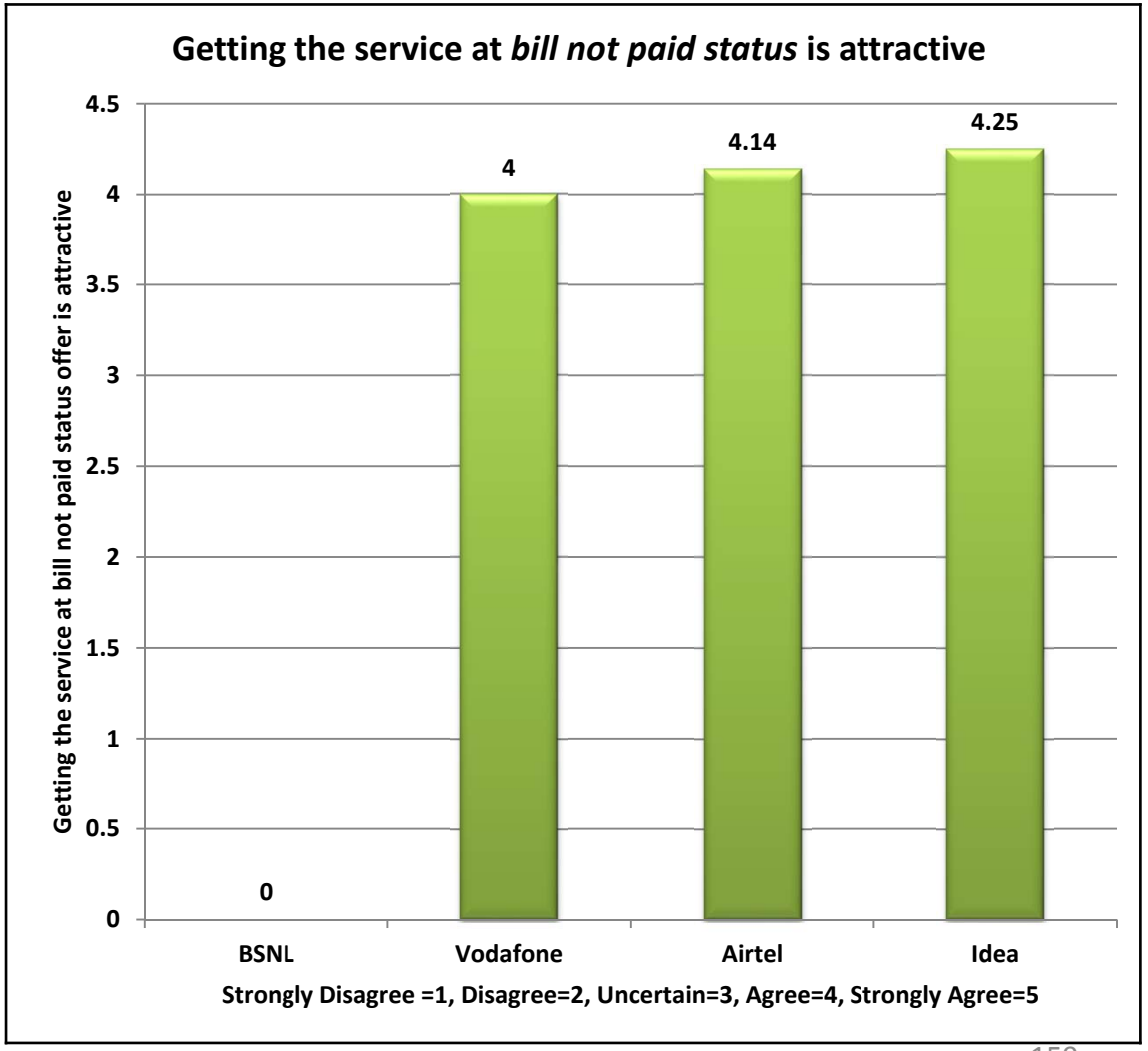
Attractiveness of *Call at Zero Balance* offer

Mobile Service Provider	*Call at zero balance* offer received ? (For prepaid customers)	
	Yes	No
Airtel	0.00 %	100.00 %
Idea	46.30 %	53.70 %
Vodafone	57.00 %	43.00 %
BSNL	77.00 %	23.00 %
N=766, BSNL – 230, Idea – 229, Vodafone – 200, Airtel – 107.		



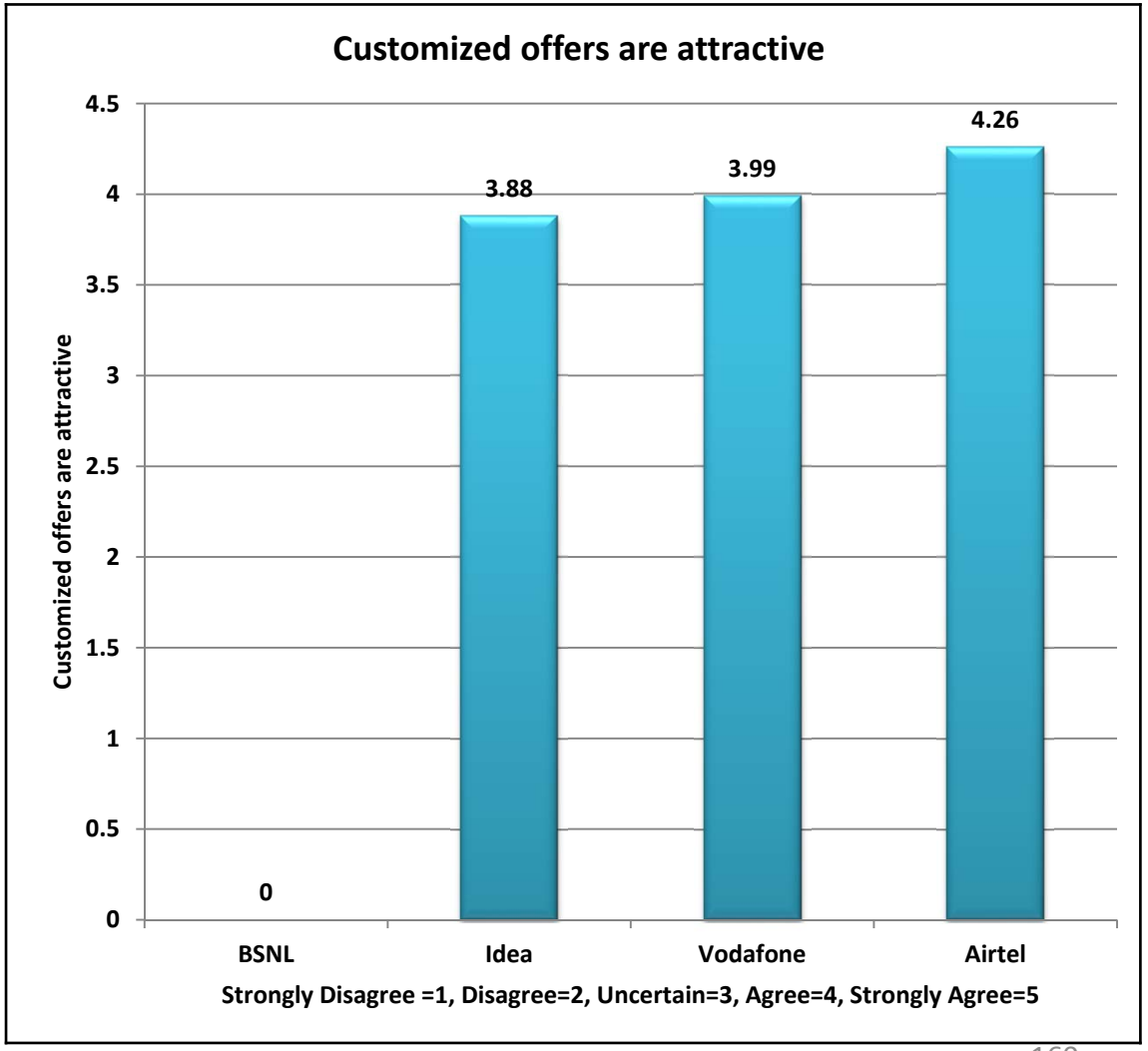
Getting the service at *bill not paid status* offer

Mobile Service Provider	Getting the service at *bill not paid status ?* (post-paid customers)	
	Yes	No
BSNL	0.00 %	100.00 %
Vodafone	24.10 %	75.90 %
Airtel	46.70 %	53.30 %
Idea	91.40 %	8.60 %
N=104, BSNL – 25, Idea – 35, Vodafone – 29, Airtel – 15.		



Attractiveness of customized offers

Mobile Service Provider	Customized offers received?	
	Yes	No
BSNL	0.00%	100.00%
Airtel	66.40%	33.60%
Idea	72.00%	28.00%
Vodafone	74.70%	25.30%
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		



Promotional phone calls

Mobile Service Provider	Promotional calls received?	
	Yes	No
BSNL	7.80 %	92.20 %
Vodafone	70.30 %	29.70 %
Airtel	75.40 %	24.60 %
Idea	80.30 %	19.70 %
N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.		

Opinion of respondents about promotional phone calls of mobile telecom service providers	
Promotional calls are inconvenient*	
Mean	Std. Dev.
2.09	.771

* Strongly Agree =1, Agree = 2, Uncertain = 3, Disagree = 4, Strongly Disagree = 5; Mean Value of the Scale = 3

The predictors of customer satisfaction

Hypothesis 4

There is significant relationship between the service related factors specifically service benefits, customer support services, quality of service, competitive pricing, tariff variety and unethical practices in mobile telecom services sector and customer satisfaction.

Service related factors

Independent Variables	Items
Service benefits	(i) Voice clarity (ii) Geographical network coverage (iii) Easiness to get connected to the network
Customer support services	(i) Easiness to get new mobile connection (ii) Availability of recharge facility at convenient locations and retailer support for the prepaid customers (iii) Convenience of payment of post-paid bills and special care for the post-paid customers (iv) Easiness to activate additional services (v) Easiness to deactivate additional services - if required (vi) Easiness to access customer care helpline (vii) Easiness to get the right customer care person on the phone (viii) Ability to solve problems at customer care touch points.

Service related factors…

Independent Variables	Items
Quality of service	The service quality of mobile phone services is measured by the 22-item SERVQUAL scale.
Competitive pricing	(i) Better pricing as compared to others (ii) Better offers as compared to others (iii) Value for money spends
Tariff variety	(i) Variety of tariff plans (ii) Easiness to switch between tariff plans (iii) Convenient recharge options (for prepaid customers) (iv) Advise suitable tariff plans
Unethical practices	(i) Transparent billing and no hidden charges (ii) Ethical pricing practices (iii) Easiness to deactivate additional services - if required

Customer satisfaction

Dependent Variable	Items
Customer satisfaction	(i) Really satisfied with my service provider (ii) Service provider is competent enough to fulfill the expectations (iii) Choice to associate with the service provider is a wise decision.

Predictors of Customer satisfaction

Logistic regression analysis			
Variables	**Odds Ratio**	**Confidence Interval: 95%**	**P value**
Age group (in years)		0.75-1.43	0.832
<30	Reference		
>=30	1.04		
Education		0.71-1.56	0.802
Below graduation	Reference		
Graduation and above	1.05		
Income		0.96-2.11	0.072
Low	Reference		
High	1.42		
Service Benefits		2.15-4.10	0
Low	Reference		
High	2.97		

Predictors of Customer satisfaction…

Logistic regression analysis			
Variables	**Odds Ratio**	**Confidence Interval: 95%**	**P value**
Customer Support Services		1.42-2.84	0
Low	Reference		
High	2.01		
Quality of Service		2.17-4.34	0
Low	Reference		
High	3.07		
Competitive pricing		2.70-5.39	0
Low	Reference		
High	3.82		
Tariff variety		0.89-1.80	0.184
Low	Reference		
High	1.27		
Unethical practices		1.88-3.85	0
High	Reference		
Low	2.68		

Customer loyalty

Hypothesis 5

There is significant relationship between customer satisfaction and customer loyalty among the customers of mobile telecom services.

Customer loyalty

Variable	Items
Customer loyalty	(i) Strong intention to remain as a customer of the service provider (ii) Would recommend the services of the mobile service provider to friends / colleagues (iii) Emotional attachment with my service provider

Customer loyalty - Correlation analysis

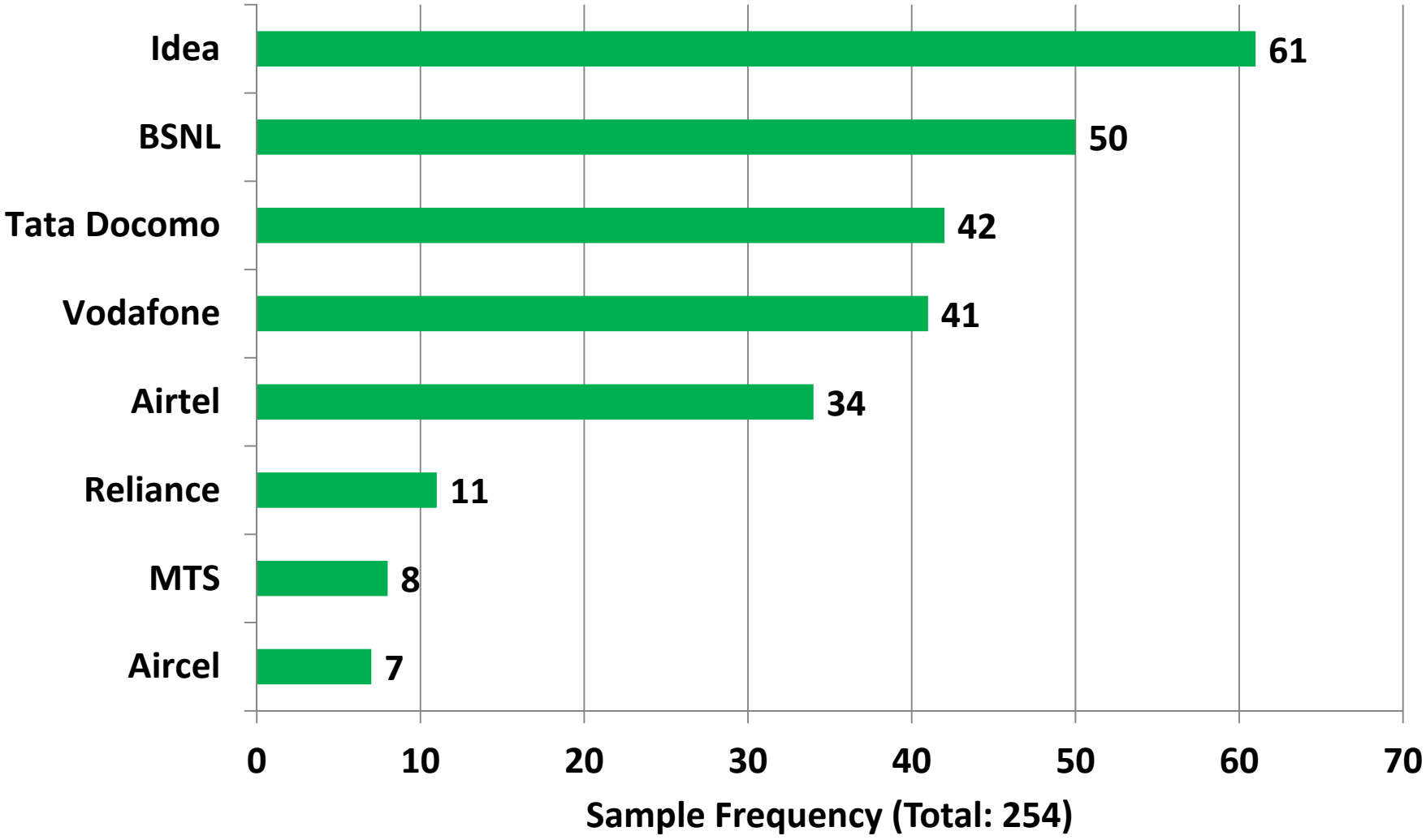
Correlations - Spearman's rho			
Details		**Customer satisfaction**	**Customer loyalty**
Customer satisfaction	Correlation Coefficient	1.000	**.773****
	Sig. (2-tailed)	.	.000
	N	1080	1080
**. Correlation is significant at the 0.01 level (2-tailed).			

Third generation (3G) mobile telecom services

Hypothesis 6

There is significant difference between the marketing strategies related to the third generation (3G) mobile telecommunication services of BSNL and private sector mobile telecom service providers in Kerala

Sample Representation – 3G Service Providers



Marketing strategies – 3G telecom services

Variables	Items
Basic service benefits	(i) Easiness to get connected, (ii) Mobile 3G network coverage, (iii) Easiness of handset settings, (iv) Speed of downloading, (v) 3G roaming facility, (vi) Service support
Quality of service	(i) Modern facilities for customers, (ii) Services are dependable, (iii) Ready to respond to the customer needs, (iv) Employees are knowledgeable and polite, (v) Understand the needs and give personal attention to them.
Pricing strategies	(i) Variety of tariff plans, (ii) Transparent billing, (iii) Value for money, (iv) Better pricing.
Promotion strategies	(i) Attractiveness of 3G price reduction offers, (ii) Attractiveness of 3G free trial offer, (iii) Attractiveness of displays and demonstrations at point of sales.

Marketing strategies – 3G telecom services…

Variable: 3G Basic service benefits							
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Mean*				
			Idea	BSNL	Vodafone	Airtel	Tata Docomo
Easy to get connected to the 3G mobile network	0.079	No Significant Difference between BSNL and private sector	4.18	3.90	4.34	4.21	4.33
Excellent Geographical 3G Network Coverage	0.000	Significant different between BSNL and private sector	3.64	3.44	3.76	3.62	2.48
Mobile 3G handset settings are easy	0.027	Significant different between BSNL and private sector	4.18	3.92	4.46	4.35	4.36
Mobile 3G downloading speed high	0.480	No Significant Difference between BSNL and private sector	3.92	3.72	4.05	3.88	4.07
Mobile 3G Roaming facility is excellent	0.005	Significant different between BSNL and private sector	3.43	3.50	3.63	3.56	2.98
Mobile 3G service support is excellent	0.001	Significant different between BSNL and private sector	4.11	3.46	3.93	4.09	3.95
Grouping variable: Mobile 3G service provider, N=228, BSNL – 50, Idea – 61, Vodafone – 41, Airtel – 34, Tata Docomo - 42.							
* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3.							

Marketing strategies – 3G telecom services…

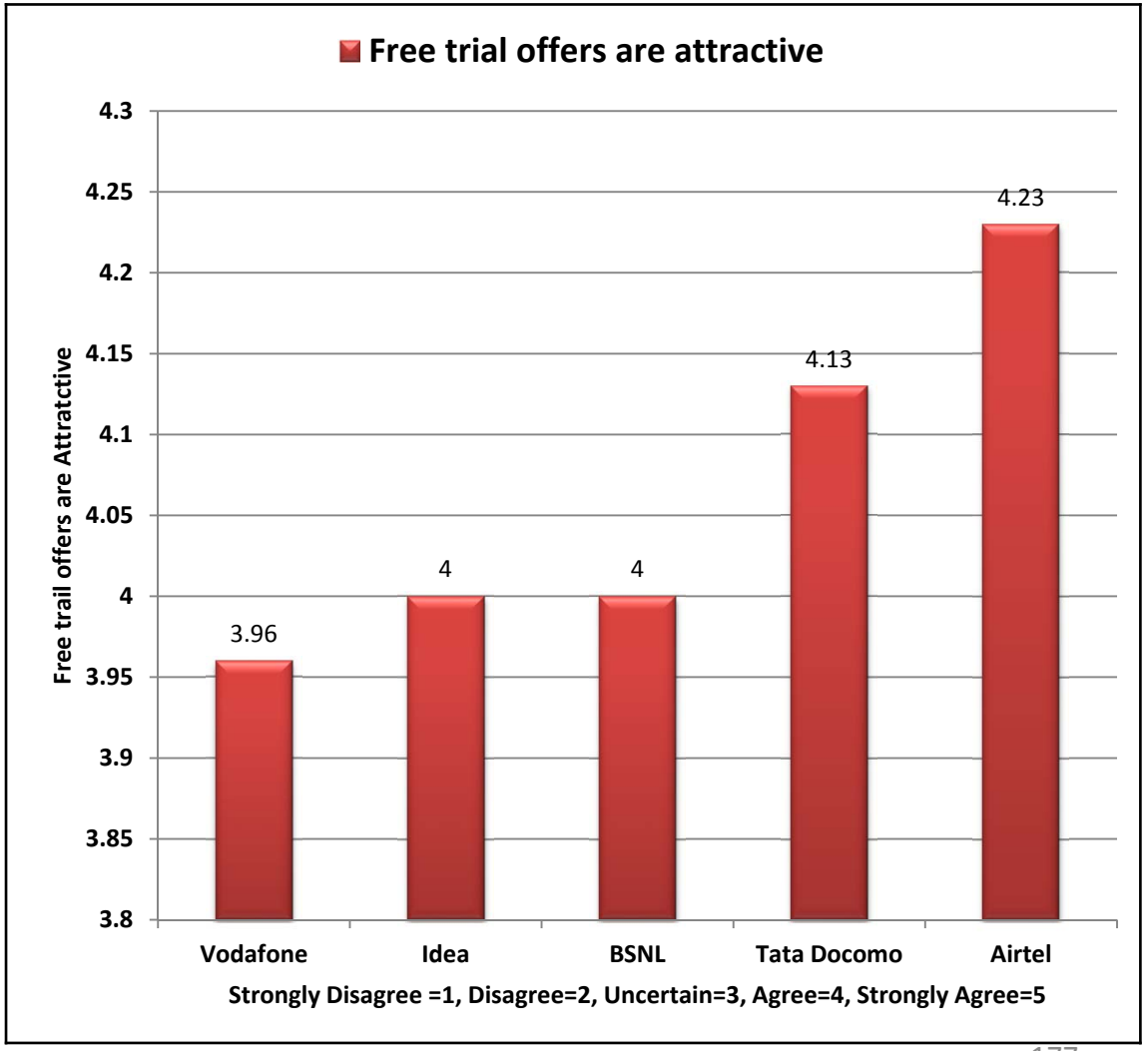
Variable: Quality of 3G Services							
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Mean*				
			Idea	BSNL	Vodafone	Airtel	Tata Docomo
Modern facilities for customers	0.068	No Significant Difference between BSNL and private sector	4.10	3.74	4.02	4.00	3.93
Services are dependable	0.029	Significant different between BSNL and private sector	3.90	3.66	3.98	4.03	3.62
Ready to respond to the customer needs	0.000	Significant different between BSNL and private sector	3.82	3.26	4.07	3.85	3.83
Employees are knowledgeable and polite	0.060	No Significant Difference between BSNL and private sector	3.90	3.46	3.88	3.91	3.83
Understand the needs and give personal attention to them	0.004	Significant different between BSNL and private sector	3.92	3.36	3.83	3.94	3.86
Grouping variable: Mobile 3G service provider, N=228, BSNL – 50, Idea – 61, Vodafone – 41, Airtel – 34, Tata Docomo - 42.							
* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3.							

Marketing strategies – 3G telecom services…

Variable: Pricing strategies of 3G Mobile Service Providers							
Items	Kruskal-Wallis test - Significance Value. (∞=0.05)	Hypothesis Test Results	Mean*				
			Idea	BSNL	Vodafone	Airtel	Tata Docomo
Variety of tariff plans in 3G services	.001	Significant Difference between BSNL and private sector	3.54	3.70	3.63	3.94	4.12
Transparent billing and no hidden charges in 3G services	.000	Significant different between BSNL and private sector	3.33	3.98	3.76	3.79	3.69
Value for money in 3G services	.077	No Significant different between BSNL and private sector	3.52	3.68	3.78	3.56	4.00
Better pricing for 3G services as compared to others	.000	Significant Difference between BSNL and private sector	3.36	3.56	3.56	3.56	4.21
Grouping variable: Mobile 3G service provider, N=228, BSNL – 50, Idea – 61, Vodafone – 41, Airtel – 34, Tata Docomo - 42.							
* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3.							

Attractiveness of Free trail offers (3G Services)

Mobile Service Provider	Free trail offers received ?	
	Yes	No
BSNL	16.00%	84.00%
Airtel	38.20%	61.80%
Idea	49.20%	50.80%
Vodafone	63.40%	36.60%
Tata Docomo	76.20%	23.80%
N=228, BSNL – 50, Idea – 61, Vodafone – 41, Airtel – 34, Tata Docomo – 42.		



Customer satisfaction: 3G services

Hypothesis 7

There is significant relationship between the service related factors specifically service benefits, quality of service and pricing of 3G mobile telecommunication services and customer satisfaction.

3G Customer satisfaction - Variables

Independent Variables	Items
Basic service benefits	(i) Easiness to get connected, (ii) Mobile 3G network coverage, (iii) Easiness of handset settings, (iv) Speed of downloading, (v) 3G roaming facility, and (vi) Service support
Quality of service	(i) Modern facilities for customers, (ii) Services are dependable, (iii) Ready to respond to the customer needs, (iv) Employees are knowledgeable and polite, (v) Understand the needs and give personal attention to them.
Pricing strategies	(i) Variety of tariff plans, (ii) Transparent billing, (iii) Value for money, (iv) Better pricing.
Dependent Variable	**Items**
Customer satisfaction of 3G mobile customers	(i) Really satisfied with my 3G mobile telecom services, (ii) Service provider is competent enough to fulfill the expectations, (iii) Choice to associate with the service provider for 3G mobile telecom services is a wise decision, and (v) Would recommend the services of the mobile service provider to others.

3G Customer satisfaction - Correlation analysis

Correlations (Spearman's rho)					
Details		**Basic 3G benefits**	**Quality of 3G services**	**Pricing of 3G services**	**Customer satisfaction**
Customer satisfaction	Correlation Coefficient	**.650****	**.514****	**.520****	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	254	254	254	254

**. Correlation is significant at the 0.01 level (2-tailed).

Demographic Correlates

Demographic profile and Preference for a particular Mobile telecom service provider			
Demographic Variable	**Pearson Chi - Square test - Significance Value. (∞=0.05)**	**Hypothesis Test Results**	**Remarks**
Age	.000	Significantly related.	The younger generation- the age group below 30 years - mostly prefer private sector mobile service providers. The age group above forty years show clear inclination towards BSNL.
Gender	.251	Not Significantly related.	--
Educational qualification	.000	Significantly related.	The customer segment of educationally low mostly prefers Idea or Vodafone and educationally high profile mostly prefers BSNL or Airtel.
Employment status	.000	Significantly related.	Government employees mostly prefer BSNL, Private sector employees mostly prefer Private telecom service providers, Self employed prefer Vodafone or Idea
Income	.000	Significantly related.	Customers of low income profile mostly prefer Idea or Vodafone Customers of high income profile mostly prefer BSNL or Airtel
Locality	.001	Significantly related.	Rural segments mainly prefer private sector telecom service providers, especially Vodafone or Idea. Urban segments show more preference for Airtel or BSNL

* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3., N=870, BSNL – 255, Idea – 264, Vodafone – 229, Airtel – 122.

Landline services

Hypothesis 8

There is significant relationship between the landline retention possibility and the service related factors specifically product benefits and service support, pricing attractiveness, and employee attitude of landline telecom services.

Sample Representation – Landline Service

Landline Service Provider	Broadband users	Non Broadband users	Total
BSNL	268	206	474
Reliance	5	25	30
Airtel	10	2	12
Tata	8	9	17
Total	291	242	533

Landline services - Variables

Independent Variables	Items
Product benefits and service support	(i) Excellent voice clarity, (ii) Compliant resolution or fault repair is fast, (iii) Excellent service support, (iv) Modern and visually appealing telephone instrument and materials, and (v) The services are dependable.
Pricing attractiveness	(i) Attractive tariff plans are offered in landline services, (ii) Landline services are low-priced, (iii) Billing of landline services is transparent and there are no hidden charges, (iv) Attractive discounts/ rebates are offered in landline services, and (v) Landline and mobile phone combined schemes/offers are attractive.
Employee attitude	(i) Employees are knowledgeable and polite to the customers and (ii) Employees of service provider do understand the needs of the customers and give personal attention to them.
Dependent Variable	**Items**
The landline retention possibility	(i) Landline services deliver the real value for money spends on it, (ii) Emotional attachment with the landline service, (iii) Satisfaction with the landline services, and (iv) Likelihood to retain the landline services.

Landline services - retention possibility

Correlations - Spearman's rho					
Details		**Product benefits and service support**	**Employee attitude**	**Pricing attractive ness**	**Landline retention possibility**
Landline retention possibility	Correlation Coefficient	**.626****	**.528****	**.567****	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	533	533	533	533
**. Correlation is significant at the 0.01 level (2-tailed).					

Landline services - Descriptive statistics

Landline service provider	N	Product benefits and service support*		Employee attitude*		Pricing attractiveness*		Landline retention possibility*	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
BSNL	474	3.29	0.888	3.23	0.944	3.27	0.597	3.54	0.758
Reliance	30	3.66	0.573	3.60	0.578	3.32	0.552	3.23	0.631
Airtel	12	4.42	0.262	4.29	0.498	2.97	0.339	3.48	0.198
Tata	17	3.79	0.698	3.79	0.532	2.96	0.389	3.07	0.571

* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3.

Landline broadband internet services

Hypothesis 9

There is significant relationship between the customer satisfaction and the service related factors specifically ‘product benefits and service support’ and ‘pricing attractiveness’ of landline broadband internet services.

Landline broadband services - Variables

Independent Variables	Items
Product benefits and service support	(i) Uninterrupted internet connectivity, (ii) Getting the download speed as assured in the broadband plan, (iii) Excellent customer support, and (iv) Excellent overall quality of broadband internet services.
Pricing attractiveness	(i) Wide variety of tariff plans are offered in broadband services, (ii) Attractive discounts/ rebates are offered in broadband services and (iii) Pricing of broadband services are attractive.
Dependent Variable	**Items**
Customer satisfaction	(i) Landline broadband services deliver the real value for money spend on it, (ii) Really satisfied with the landline broadband internet services and (iii) Would recommend the landline broadband internet services to the friends / colleagues.

Broadband services – Customer satisfaction

Correlations - Spearman's rho				
Details		**Product benefits and service support**	**Pricing attractiveness**	**Customer Satisfaction**
Customer Satisfaction	Correlation Coefficient	**.618****	**.610****	1.000
	Sig. (2-tailed)	.000	.000	.
	N	291	291	291
**. Correlation is significant at the 0.01 level (2-tailed).				

Broadband services - Descriptive statistics

Landline broadband internet service provider	N	Product benefits and service support*		Pricing attractiveness*		Customer Satisfaction *		Broadband internet is the main factor which forced the customer to retain the landline connection*	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
BSNL	268	3.74	0.764	3.63	0.687	3.91	0.700	3.45	1.267
Private Sector	23	4.21	0.542	3.10	0.454	3.72	0.343	2.48	.790

* Measured on a 5-point Likert Scale, Strongly Disagree =1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5; Mean Value of the Scale = 3.

Findings

Product Differentiation - General	
Idea	• **Excellent geographical network coverage** • **High tangibility and responsiveness**
BSNL	• **High Brand value** • **Excellent geographical network coverage** • **Excellent roaming facility**
Vodafone	• **High Brand value** • **High tangibility, responsiveness, assurance and empathy**
Airtel	• **Excellent voice clarity** • **Congestion free networks** • **Easy to activate internet services** • **High tangibility, responsiveness and empathy**

Findings…

Product Differentiation – Customer support	
Private Sector	• **Easy to get mobile connections** • **More variety of tariff plans** • **Assurance of retailer support to the customers** • **Availability of recharge facility and suitable recharge options at customer convenient locations** • **They consistently advise suitable tariff plans to the customers.** • **Customer convenient bill payment facilities** • **Special care for postpaid customers**
BSNL	• **Switch over between tariff plans is easier with BSNL than other service providers.**

Findings…

Pricing	
Private Sector	• **Extremely successful in offering customized services** • **Better offers** • **Unethical pricing practices are more prominent among private sector providers, especially with the service provider *Idea***
BSNL	• **Ethical pricing practices and transparent billing**
Promotion	
Private Sector	• **Highly effective advertisements** • **Highly aggressive promotion strategies**
BSNL	• **The majority of the sales promotion offers of BSNL are highly attractive. But the offers do not rightly reach the targeted customers.**

Findings…

Predictors of Customer Satisfaction

- **The significant predictors of customer satisfaction are basic service benefits, customer support services, quality of service, competitive pricing, and unethical practices.**

Demographic Correlates

- **The demographic segments such as younger age groups, private sector employees, customers in low income profile, low educational profile, and rural residents prefer private sector service providers.**

- **The demographic segments such as government employees and customers of age group above forty years prefer BSNL.**

Findings…

3G mobile telecom services

- **The 3G mobile telecom services of Idea, Vodafone and Airtel are more dependable than Tata Docomo and BSNL.**
- **The private 3G mobile service providers have significantly higher levels of eagerness to understand the needs of customers, to respond to the customer requirements and to give personal attention to them than the service provider BSNL.**

Landline telecom services

- **The product benefits, service support, pricing attractiveness, and employee attitude are positively correlated to the landline retention possibility.**
- **The customer satisfaction of landline broadband internet services has high positive correlation with product benefits, service support and pricing attractiveness.**
- **It is observed that 60% of respondents of BSNL landline broadband services retained their landline services only for availing broadband internet connectivity; whereas in private sector the corresponding value is 17% only.**

Suggestions

- The service providers should ensure superior delivery of the basic core service benefits of mobile telecom services such as voice clarity, geographical network coverage, and congestion free networks to have a lead role in the mobile telecom services market.
- The service providers should support the customers with: trouble-free access to customer care touch points, effortless activation of value added services, uncomplicated deactivation of the services as and when required, knowledgeable and empowered customer care personnel.

Suggestions…

- BSNL should develop and nurture a customer/ retailer friendly and supportive approach. In order to attract low income groups and daily earners, BSNL should introduce small denomination recharge facility and make it available at customers' convenient locations.
- The service providers should segment the high value customers in post-paid and prepaid category and support them with special consideration, care and attention.
- To build a loyal customer base, the service providers should consistently deliver superior service benefits, customer support services, quality of service and competitive pricing. They should abstain from all unethical business practices towards customers.

Suggestions…

- The telecom service providers are finding it difficult to popularise the 3G services. The important 3G adoption issues are high pricing of 3G services, high cost of 3G mobile handsets and lack of geographical 3G network coverage. Moreover the needs and benefits of 3G services are not being felt by the customers. The service providers should formulate strategies to overcome these barriers.
- As a strategic effort to give existence to the landline industry, BSNL may attempt service quality improvement initiatives and value addition with broadband internet services. The attitude of employees in BSNL landline segment has to be substantially improved. The appropriate marketing strategies of pricing and promotion may also help the service providers to further strengthen the landline industry in Kerala.

Limitations of the study

- The primary data is collected from the respondents through a survey using the questionnaire designed for the study. There are chances that the answers of the respondents may be influenced by their mood and cognitive limitations. Although utmost care has been taken to ensure the reliability and validity of the questionnaire, the possibility of such errors cannot be completely ruled out.
- The market of telecommunication services in Kerala is highly dynamic and extremely competitive. Due to the frequent changes in the marketing strategies of the service providers, the latest trends after the primary data collection process could not be included in this study.

Conclusion

- The research brings clarity to the marketing strategies adopted by the public sector telecom service provider BSNL and private sector telecom service providers in the thriving telecom services market of Kerala.
- The comparative study of market performance of telecom service providers in multiple facets lightened the hidden planes of marketing strategies of various telecom service providers.
- The expectation of customers are rising day by day. It has become difficult for the service providers to consistently exceed the expectations of customers. The formulation and execution of appropriate marketing strategies have become imperative to the service providers for the existence and prosperity in the saturated market of telecom services.

Scope for future research

- Business to Business (B2B) marketing strategies in telecommunication services sector may be researched.
- The consumers' purchase decisions are influenced by their perceived emotions. The possibility of using emotional benefits in the formulation of differentiation strategies and its effects could be studied.
- The internal marketing which enables employees to keep the promises that have been communicated to the customers by the Organization. An exhaustive research study may be conducted to explore the internal marketing strategies of public and private sector telecommunication service providers.

Sincere Thanks

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