# 6. CONCLUSION, RECOMMENDATIONS & FUTURE RESEARCH

The following discussion will base on the objectives of the research and key findings and limitations identified during the process. Also last section will suggest directions for future research to gain further information regarding the Sri Lankan mobile market.

The main objectives of the research study was to,

- 1. Do Value added services offered by the mobile operator have a higher influence of creating and retaining subscribers in Sri Lankan mobile industry?
- 2. Relatedness of VAS usage influencing factors and VAS influence?
- 3. Awareness of VAS and expectations of VAS

As stated in section 5.2 hypothesis state that the significance of value added services on the market effective is high, therefore it can be concluded that in creating and retaining subscribers, value added services offered by the network play a significant role. This was clearly in contradicts to the preliminary finding from interviews and opinion surveyed, throughout the industry implying that, VAS has very little or no influence even at all in the lead market segments. Although the research doesn't represent the population itself, using the assumption that technology diffusion to mass market will not be possible without the lead market accepting it, mass market is reflecting the same opinion as the lead market or will be in the near future.

From the general findings it was observed that the sample consisted mainly of males. Although a definite conclusion cannot be arrived from this fact, it can be speculated that, the sample was inefficient with poor representation of the female mobile subscribers or in Sri Lankan context the lead market contains more males than females in Sri Lanka. In case if the sample was such that it represents fewer females, the market potential that can be gained from females has not been fully explored in the research. With the Sri Lankan male to female population ratio being close to 49:51, clearly the larger portion of the population is female and it is a high potential market where VAS can be

promoted. The likelihood of promoting technology that will be easier to use among the female subscribers will needs to be further inspected.

The comparative analysis of the influence coverage, price and VAS have on selection of the network, has shown that VAS has a higher influence than price among the lead market. Even though the perception about price of handset and VAS listed is considered "High/Expensive" by the participants (even to the extent of comments stating that they are willing to use the services, but the prices are high), VAS influence on network selection was considered high compared to price. This signifies that the influence of price is slowly diminishing as stated in the literature survey regarding European countries. But compared to coverage, this figure is low. Since coverage is not uniformly distributed throughout Sri Lanka, the expectations and the influences it has is high. Comparison of influence between price and VAS was a significant finding, which indirectly shows the maturity of the lead market. The lead market consisting of early adopters and trendsetters are evaluating and experimenting on value added services, even if it mean they have to pay a higher price. University of Moratuwa, Sri Lanka.

Therefore the investment network operators are currently devoting to value added services is justified. Sri Lankan mobile market is now achieving its maturity and growing further. Even within the lead market sample 37% of the subscribers are added to the network as new users, an additional connection or migrated from another network. With the maturation of the market, VAS can be used as a tool to influence migrations between network operators.

Considering the VAS usage factors, it was observed that social factors play a significant role for the participants who were influenced by VAS. The economical factors are such that, participants who are more influenced by the VAS, were expecting cheaper solutions. Obviously consumers in general will want cheaper value added solutions, but the demand from the mobile subscribers should be noted.

As stated social influence on the usage of VAS is high, especially the primary analysis of the data collected has shown that "keeping up with technology" is considered highly as much as the influence "Friends" will have on the usage of VAS. This may be attributed to the fact that majority of the participants are

connected to the DialogGSM network, which promotes "Future technology". Therefore the importance of the influence "Keeping up with technology" will have upon the subscribers in this case is clearly visible. Consequently, it is necessary that the trend should be maintained in order to create influence on VAS usage and thereby to increase market effectiveness among the Sri Lanka consumer market. Of all the social factors, "Usefulness and Convenience" is highly correlated to VAS influence and the mean value is higher than other social factors. Hence, to increase the usage of VAS, the social influence can be exploited. For example, services such as SMS Chat involve virtual social interactions, which will raise SMS Chat usage.

Another key finding is that the awareness of services among the participants is low for MMS, GRPS and SMS based services. According to the correlation analysis even if the subscribers were influenced by value added services, the awareness doesn't relate. It was expected that lead market participants should be more conversant with technology than the mass market. Even though the above case was expected, the awareness level for each of the services is low (less than 75%). This may be due to poor communication and advertising, or the fact that the network itself does not promote these services. In either case, unavailability of information about services such as these will be a concern for the network in the near future. In relation to the finding "Significance between price and VAS is diminishing", the low level of awareness about VAS will hinder the growth of that particular VAS. Thus, information about VAS needs to be laid out clearly in an understandable way to the subscribers in general to derive the future potential as well as the present usage of VAS, thereby creating a positive correlation between VAS influence and awareness as well as VAS usage.

The expectations of the sample are mostly towards information services. The reason for this maybe that,

- The existing services doesn't provide adequate information
- The awareness about information services is low
- More information services are needed than the existing info services

In concluding the mobile subscriber market in Sri Lanka is reaching it maturity, and value added services will play an important and significant role in the future.

#### 6.1. FUTURE RESEARCH

The same research can be used in the future to determine the level of significance VAS has on the subscribers/lead market. The above approach can be used in evaluating the market effectiveness in the future (6 months) and compare the results to this reports to resolve if there is a significant change in the state of affairs. Even introduction of recommended options can be evaluated to have any effect on the market effectiveness. For example, after a marketing campaign to increase awareness of value added services, the theory and the questionnaire can be applied again to evaluate the new state of the sample and the market population. This research study was a preliminary attempt in order to understand value added services and marketing effectiveness in Sri Lanka. The researcher attempted to cover a wide area encompassing the mobile industry.

This research is restricted due to natural constraints associated with this kind of student research project and other constraints such as confidentiality of business information etc. Further comprehensive analysis could be performed in all identified areas in order to derive a more comprehensive and complete model for value added services and mobile industry. Also the model presented by the researcher is a general model and the model could be varied depending on the target market. Hence more focused research could be performed in the identified target markets in order to derive a more complete and focused theoretical model. For example teenage and female markets were not considered in the research, which have to be investigated to in order to assess the whole of Sri Lankan mobile market.

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### 8. ANNEXTURE

## 8.1. ANNEXTURE I: SURVEY QUESTIONNAIRE

# SURVEY ON MARKET EFFECTIVENESS OF MOBILE VALUE ADDED SERVICES

Introduction	oktorio kalonomino oma kanka kokka kalon kalonin mohime kromekkon soosa sukkhukesekso kalonassa kana kalon kul
University of Moratuwa.	aire is a part of the postgraduate research project carried out by the The research is focused on the effectiveness of value added services Sri Lankan mobile industry and the expectations of VAS by the
• •	: MBA in IT, University of Moratuwa : W.K.C. Wickramaratne
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Instructions	
circling the answ • SMS Based ser	s survey are answered either by putting ticks on check boxes or ver.  *vices* refer to applications based on SMS. (Cricket via SMS, Stock SMS, exam results via SMSetc)
1. General Info	
<ol> <li>Are you ☐ female or</li> <li>Which age group do y</li> <li>☐ 16 - 1</li> <li>☐ 36 - 4</li> </ol>	you belong to? (Select only one) 8 □19 - 25 □26 - 35

☐66 – 75 ☐76 and over
3. What is your education level?
□A/L
□Degree
☐Masters
□N/A
4. What is your occupation?
5. What industry are you related to? (Click only one)
☐Agriculture
☐Arts, Entertainment & media
☐Information Technology
☐Civil and construction
☐Education and training
☐Financial
□Legal
Telecommunication
Other Ectronic Theses & Dissertations
6. What your network operator? (Click only one)
□DialogGSM
☐Mobitel
□Celltel
Hutchison
2. Influence of value added services
7. Have you obtained a new connection within the last 6 months? ☐Yes ☐No
8. If <b>yes</b> to question 7,
☐Totally new to mobile industry
□New connection only
☐Migrated from another network
□No change
How much influence the following attribute had on your selection of network operator?

· ^	Very high	High	Moderate	Low	Very low
). Coverage					
0.Value added services					
1.Price					
□ммѕ	Based services  Based services  Based services	ces			
AS Usage and Qua	((B)) Electro	rsity of Moratuwa onic Theses & Di- ib mrt.ac.lk			ran a tur interesse at securior in a
Usages	Electro www.l	e added serv	ices?	Occasionally	Never
Usages often you use the f	following valu	e added serv	ices?	Occasionally	Never
Usages v often you use the f	following valu	e added serv	ices?	Occasionally	Never
Usages v often you use the f	following valu  Daily	e added serv	ices?	Occasionally	Never
Usages v often you use the f	following valu	e added serv	ices? Once a week	Occasionally	Never
Usages v often you use the final state of the state of th	following valu  Daily	e added serv	ices? Once a week	Occasionally	Never
Usages v often you use the final state of the state of th	following valu  Daily	e added serv	ices? Once a week		Never

	Very high & reliable	High	Moderate	Low	Very low		
17.SMS							
18.SMS Based				-			
services							
(Eg SMS by Cricket)							
19.MMS							
20.WAP-GPRS							
4. VAS influencing factors			of the second of	and the state of t			
4.1 Technological							
21.Technology used by value	e added servi	ces are,					
☐Too advance & co	mplicated						
☐Advance, but can	manage it				•		
☐Moderate							
☐Easily & simple							
4.2 Economical  22.What do you think of the price of VAS compatible mobile phone?  Too expensive Expensive Moderate Cheap Very cheap What do you think about the charge of value added services by the network operator?							
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap	orice of VAS o	compatible r	nobile phone		operator?		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap	orice of VAS o	ue added se	ervices by th	e network	Not		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap	orice of VAS o	compatible r	ervices by th	e network	Not		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap	charge of value	ue added se	ervices by th	e network	Not used		
22.What do you think of the Too expensive Expensive Moderate Cheap Very cheap What do you think about the	charge of value	ue added se	ervices by th	e network o	Not used		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap  What do you think about the	charge of value	ue added se	ervices by th	e network o	Not used		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap  What do you think about the  23.SMS  24.SMS  Based	charge of value	ue added se	ervices by th	e network de te Che	Not used		
22.What do you think of the Too expensive  Expensive  Moderate  Cheap  Very cheap  What do you think about the  23.SMS  24.SMS  Based  services	charge of value	ue added se	ervices by th	e network de te Che	Not used		

4.3 Social

I am/will be using VAS because,

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		High	Moderate	Low	influence
27.Most of my friends use VAS					
28.Work related					
29.Keep up with technology					
30.Useful and convenient					
4 Awareness ow much you know about	Know it	roducts offer	Heard	oile indust	
	and used it	_	about it	so ev	rer
31. SMS					
32. SMS Based services (Eg SMS by Cricket)					
33. MMS	University of	Moratuwa, Sri Li	anka.		
34. WAP-GPRS	Electronic The www.lib.mrt.	eses & Dissertati ac.lk		<del>                                     </del>	
35. 3G					
S.What value added service  Information service Games and Ente Sports Finance  7.What are the barriers you	ces rtainment u have face in		(Please fill ac	cording to	the level: 1
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	e about VAS				
Price of H Cost of Se					
Other					
☐SMS enabled					

☐WAP enabled
☐GPRS enabled
☐MMS enabled
Comments: Enter your comment here

Market Effectiveness of Value Added Services in Sri Lankan Mobile Telecommunication Industry

Thank you for your time



### ජංගම දූරකතන අමතර සේවාවන්ගේ බලපෑම පිලිබද සමීක ණය

හඳුන්වාදිම මෙම සමීකමණ පුම්නාවලිය, මොරටුව විම්ව විද්යාලය මගින් පවත්වනු ලබන පශ්චාත් උපාරි පර්යේෂන ව්යාපෘතියේ කොටසක් වේ. මෙහි අරමුණ වනුයේ. ශී ලංකාවේ ජංගම දුරකතන කර්මාන්තයේ දෙනු ලබන අමතර සේවාවන්ගේ බලපෑම සහ අමතර සේවා සඳහා පරිභෝගිකයන්ගේ ඇති බලාපොරොත්තු හඳුනා ගැනීමයි.
රහසාපතාවය ඔබගෙන් ලබාගන්නා තොරතුරු වල රහසාපතාවය මෙයින් තහවුරු කරන අතර එම තොරතුරු මෙම ව්යාපෘතිය සඳහාම පමණක් භාවිතා කරන බව තහවුරු කේරේ.
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o WAP – GPRS ප්රතම දුරකතන අන්තර්ජාල සේවාව
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			<b>©</b> -c	කුල්ලී ලක සර කැමකැග ; (ල්කම (ල්කම	ම්ථිකම් කෙ     ධ්රම, පිරමුක     දුර්සිමේ මල     සප (සධිති     සම සමුමු     සම සමුමු     සම සම්මු	
		)	ද වෙලිකු නෙකු දි	කල කුකරීණාල	ි. ඔම කුමන ද	ì

12. ඔබට අමත තේරිමට වැ	ට සෙවා වැද ඩි දායකත්වය		පහත සඳහ	න කුමන ලෙසව:	)ଧ ଅଧିବର
MMSWAP & Gවේනත්  3. අමතර සේවා භාවිත		බිය			
3.1 භාවිතය ඔබ පහත සඳහන් අමතර (	සේවාවන් කො	පමණ වාරයක්	භාවිතය කර	රන්නේද.?	
	දිනපතා	සහිපතා	සභියකට වරක්	කලාතුරකින්	කෙ <b>සි</b> සේත් නැත
13. SMS					
14. SMS Based					
15. MMS					
16. WAP-GPRS					
10. WAF-GFNG					
3.2 පුම්තිය පහත සදහන් අමතර සේවා	Electronic The	Marshiwa Sri Lan s & Dissentition ස ස්වීල්බද ඔබ	S	ම කෙසේද?	1
3.2 පුම්හිය	Electronic The	eses & Dissertation	S	ම කෙසේද? පහ@යි	ඉතා පහලයි
3.2 පුම්තිය පහත සදහන් අමතර සේවා 17.SMS	වන්ගේ පුමිතීර	ය පිලිබද ඔබ	ි ගේ අත්දැකි	1	ඉතා පහලයි
3.2 පුම්තිය පහත සදහන් අමතර සේවා	වන්ගේ පුමිතීර	ය පිලිබද ඔබ	ි ගේ අත්දැකි	1	ඉතා පහලයි
3.2 පුම්තිය පහත සදහන් අමතර සේවා 17.SMS 18.SMS Based	වන්ගේ පුමිතීර	ය පිලිබද ඔබ	ි ගේ අත්දැකි	1	මුතා පහලයි 
3.2 පුම්තිය පහත සදහන් අමතර සේවා 17.SMS 18.SMS Based services	වන්ගේ පුමිතීර	ය පිලිබද ඔබ	ි ගේ අත්දැකි	1	ඉතා පහලයි 
3.2 පුම්තිය පහත සදහන් අමතර සේවා 17.SMS 18.SMS Based services	වන්ගේ පුමිතීර ඉතා ඉහලයි	ම පිලිබද ඔබ ඉතලයි	ි ගේ අත්දැකි	1	ඉතා පහලයි 

4.2 ආර්ථක සධක  22. අමතර සේවාවන් ල	තයි පි			ದೇ?	
	ඉතාමත් මිල අධකයි	මිල අධකයි	මධ පස්තයි	ම්ල අඩයි	අදාල නැත
23. SMS					
24. SMS Based services					
25. MMS					
26. WAP-GPRS					
4.3 සමාජිය සධත මම අමතර සේවාවන් භාවිත	The way of the contract of the	Moraliwa Sri La	සාමනුවයි		<b>₽€</b> )@
27. මගේ මිතුයන්	ඉහලයි	9090	4.0000		නැත
භාවිතය කරන නිසා					
28. රැකියාවට අදාලයි					
29. තාක්ෂණය සමග ඉදිරියට යාමට					
30. පුයෝජනවත් සහ පහසුයි					
4.4 දැනුවත්තාචය පහත සදහන් අමතර සේවා	මනා දැනුමක් ඇතිව භව්තා	ලිබඳ ඔබ ලෙස හවිතා කරයි	තාලත <b>ක් දු</b> රට ( අසා ඇත	දැනූවත්ද? කිසිවක් නොදුනියි	
31.SMS	කරයි 				, m 158
32.SMS Based					

services

33.MMS

34.WAP-GPRS					
35.3G					
36.පහත සඳහන් කුමන	න්			ಾ ಶಾ	ම්ද?
37.අමතර සේවාවන් හ ලකුණු සටහන් 0 යනු කිසිම			, අපහසුතාවය	නේ 0 සට 10	දක්වා
හාමාව දැනුම ජංගම දූර සේවාවන්					
වෙනත් 🔃 🥼		Moratuwa, Sri Lani ses & Dissertation c.lk			
38.ඔබගේ ජංගම දූරක	තනයේ, මී අැත.				
		<b>ස්</b> තුතියී			

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