Exploratory Study on Perceived Use of DMB Cellular Phone

Dr. J.P. Shim
Professor of Management
Information Systems (MIS)
Director of International Business Strategy Program

jshim@cobilan.msstate.edu
Agenda

- HBS Executive Education/CTIA/WTS
- Overview of Wireless and Current Issues
- Korea’s Lead in Cellular Phone Industry
- Research Model
- Research Methodology
- Data Analysis
- Conclusion
Trends – Business Executives, CTIA, WTS

Harvard Business School Executive Education

1. Changing Roles of the CEO and CIO/CTO, and their relationship
2. Business Transformation, Computer Operations, and Internetworking
3. E-commerce, M-commerce, U-commerce, telecommunications
4. The Internet and the Law/Policy

• International Conference on Information Systems (ICIS)
• Americas Conference on Information Systems (AMCIS)
• IEEE Communications Society
Mobile Wireless Services and Business: Current Issues

Evolution of Mobile Wireless Services and Businesses

- Technical
- Logistical
- Social
- Cultural

Before

After

5 lbs

3.3 oz
Present and Future of Wireless and DMB

What about the present/future?

DMB (Digital Multimedia Broadcasting) - DVB-H of Nokia - FLO technology of Qualcomm

Intel’s mobile Centrino for 802.11x; Rosedale for 802.16d

QualComm’s MSM chipset

QualComm invested $800M for DMB

In Your Pocket

- Satellite and Land-based TV
- Computer apps
- Mega-Pixel Camera
- GPS
- Multi-user Games
- Security
- Music

Dr. Gordon Moore
Co-Founder, Intel

Dr. Irwin Jacobs
CEO, QualComm
Factors affecting Korea’s Lead in Cellular Business

J. P. Shim, “Korea’s Lead in Mobile Cellular and DMB Phone Services,” CAIS, Vol.15, April 2005

- A “bbali bbali” Culture – acquire the latest model
- Free Incoming Calls
- Pervasive Infrastructure - CDMA
- Convenience – with social status
- Population Density – excellent reception
- Aggressive IT Planning – Korean government
- Subsidies – purchase below market price
The Network

For Wireless LAN: IEEE 802.11b, 11a, 11g, (11n)

For Wireless Broadband: 802.16d WiMax, WiBro

Mobile Station (MS)  Base Transceiver Stations (BTS)  Base Station Controllers (BSC)  Mobile Switching Centre (MSC)  Public Switched Telephone Network

AuC  EIR  HLR  VLR

How Wi-Fi works
A land-based internet connection, such as a digital subscriber line, cable modem, or T1 line...

Access point
DSL

Receiving antenna
Laptop computer

Anyone within range who has a receiving antenna, usually attached to a laptop computer, can pick up the signal.

SS7 (signaling system #7)
Wireless Update

- **Mobile WiMAX – 802.16e**
  - (1-3 miles) (<30mbps)

- **3.5G wireless – HSDPA**
  - (1-3 miles) (<12 mbps)

- **Rosedale for 802.16d**
  - WiMAX (4-6 miles: metro)
  - (50 miles: rural) (<75mbps)

- **Centrino for 802.11x**
  - WiFi (<300 ft)

- **WiBro** is now located between WLAN and Cellular service
Cellular Phone Use

Communication tool – enables calling and SMS

Entertainment tool – supplies games, pictures, movies, MP3

Information tool – provides news, maps, TV programs, and ads (Verizon’s service – CNN, ESPN)

Fashion/ Expression tool – presented as a similar to brand-name clothes and shoes
Broadcasting? “One-to-many” approach

Cellular systems are on a “one to one” approach

Broadcasting systems are on a “one to many”

- Much lower costs to users vs. high data rates of 3G cell phones
  - Attractive to users

Business models

1) Free services paid by advertising
2) Subscription / Flat fee
3) Combination of the two
History of DAB and DMB

- USA and European countries develop DAB services
- Japan begins DMB services in automobile devices
- Korea begins SDMB and TDMB services on cellular phones
- DAB services begin
- Mid-1990s
Digital Television Transmission Standards

North America
- Qualcomm’s MediaFLO
- DVB-H Trial in Pittsburgh, PA
- Phones launch date: 2007

Europe
- Trials in UK, France, Finland, Germany, Sweden
- Phones launch date: late 2006

Asia
- Korea and Japan ahead of game
- Korea’s launch date: 2005
- Japan launched in 2004
# Digital Television Transmission Standards

<table>
<thead>
<tr>
<th>Standards</th>
<th>Region</th>
<th>Characteristics / Features</th>
<th>Modulation</th>
</tr>
</thead>
</table>
| **DMB:**    | Korea    | • European broadcasters can add video at little extra cost  
• Rapid implementation  
• Will free up telecom pipelines for higher-margin data services (video phone calls)  
• Consumes too much power | COFDM      |
| Based on Eureka 147 DAB |          |                                                                                                                                                                                                                           |            |
| **DVB-H:**  | Europe   | • “Time slicing” technology: short high bandwidth bursts rather than constant low bitrate streaming  
• Reduces power consumption and saves battery life  
• Requires allocation of new frequencies and more expensive investment  
• Dependence on separate networks: over-the-air and 3G | COFDM      |
| Based on DVB-T |          |                                                                                                                                                                                                                           |            |
| **ISDB-T**  | Japan    | • Lower power consumption  
• Operates on unused TV channels  
• Provides SFN (single frequency network) and on-channel repeater technology | OFDM       |

**Korea**  
**Characteristics / Features**  
• “Time slicing” technology: short high bandwidth bursts rather than constant low bitrate streaming  
• Reduces power consumption and saves battery life  
• Requires allocation of new frequencies and more expensive investment  
• Dependence on separate networks: over-the-air and 3G

**Europe**  
**Characteristics / Features**  
• Lower power consumption  
• Operates on unused TV channels  
• Provides SFN (single frequency network) and on-channel repeater technology

**Japan**  
**Characteristics / Features**  
• “Time slicing” technology: short high bandwidth bursts rather than constant low bitrate streaming  
• Reduces power consumption and saves battery life  
• Requires allocation of new frequencies and more expensive investment  
• Dependence on separate networks: over-the-air and 3G

**Standards**  
**Modulation**

**DMB:**  
Based on Eureka 147 DAB

**DVB-H:**  
Based on DVB-T

**ISDB-T**
# DMB and DAB Services

<table>
<thead>
<tr>
<th>Country</th>
<th>USA</th>
<th>Europe</th>
<th>Japan</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service provider</strong></td>
<td>XM</td>
<td>Sirius</td>
<td>Global Radio</td>
<td>MBCO</td>
</tr>
<tr>
<td><strong>Number of channels</strong></td>
<td>101 (Audio) channels (music, sports, adult)</td>
<td>102 (Audio) channels (music, sports, news)</td>
<td>150 (Audio &amp; Data) channels (In Germany, T-DMB)</td>
<td><strong>Satellite DMB</strong> 14 video channels 24 audio channels <strong>Terrestrial DMB</strong> 6 video channels 18 audio channels 3 data channels</td>
</tr>
<tr>
<td><strong>Receiving device</strong></td>
<td>In-car terminal</td>
<td>In-car terminal</td>
<td>In-car terminal</td>
<td><strong>Cellular DMB phone, In-car terminal</strong></td>
</tr>
</tbody>
</table>

Sources: The Korea Times, “Korea's Free Mobile Broadcasting Faces Snag”, Jan 18, 2005  
DAB – Delphi XM MyFi

- The world’s first portable XM satellite radio
- Received over 130 XM digital channels
- All music channels are 100% commercial-free
- $299 ($11.50/month)
How DMB works

Satellite

Land-based Tower

Satellite DMB Center

Gap-Filler

Program Provider

DMB Cell Phone

Automobile Terminal

Terrestrial DMB Center

Program Provider
A Schematic View of DMB Data Service Business Model

DMB producer

Provides contents

Charges fee

Provides A/V contents

Charges fee

Data Provider

Provides various contents

Charges fee

Customer

Provides contents

Charges service fee

Advertiser

Charges advertising fee

Purchasing advertised services via DMB device

DMB producer

Charges advertising fee

Advertiser
Research Questions

Do users believe that good quality service of DMB program contents will offset DMB phone price/usage the cost?

Do users perceive high-quality DMB program contents as satisfactory service offered by the DMB service provider?

Do users perceive easy access to DMB applications as satisfactory service offered by the DMB service provider?

Are there differences between different age groups in terms of their perception of DMB phone price, phone usage time, program contents, and service?
Research Methodology*

Research Dimensions

- Realism
- Precision
- Generalization

Study Phase I
- Qualitative Research Analysis, especially the existential phenomenological method

Study Phase II
- Quantitative Research Method including survey questionnaire

### Study Phase I

#### Selection
To determine a specific set of key factors of critical concern to DMB users, 19 respondents were enlisted.

#### Referrals
The respondents (whose names were obtained through network or referral), were asked to name additional individuals who have experienced DMB services.

#### Interview
The open-ended questions presented (each interview, with 20-30 min, was recorded; with confidentiality).
<table>
<thead>
<tr>
<th>Respondents</th>
<th>Age</th>
<th>Gender</th>
<th>Main reasons to purchase DMB</th>
<th>Frequency of using DMB</th>
<th>Negative aspects</th>
<th>Positive aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Student</td>
<td>25</td>
<td>M</td>
<td>Fast information</td>
<td>Very Often</td>
<td>Poor connection</td>
<td>Mobility High quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trend spot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Student</td>
<td>20</td>
<td>F</td>
<td>Entertainment</td>
<td>Often</td>
<td>Limited time</td>
<td>High quality Reliable handset</td>
</tr>
<tr>
<td>Undergraduate Student</td>
<td>21</td>
<td>F</td>
<td>Cultural performance</td>
<td>Often</td>
<td>High price of phone device</td>
<td>Mobility High quality</td>
</tr>
<tr>
<td>Undergraduate Student</td>
<td>24</td>
<td>M</td>
<td>Information access</td>
<td>Very Often</td>
<td>Low speed</td>
<td>Convenience</td>
</tr>
<tr>
<td>High tech manager</td>
<td>29</td>
<td>F</td>
<td>Information search</td>
<td>Very Often</td>
<td>Poor service</td>
<td>New Media</td>
</tr>
<tr>
<td>IT employee</td>
<td>29</td>
<td>F</td>
<td>VOD service</td>
<td>Very Often</td>
<td>Poor service</td>
<td>New Culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Information search</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business manager</td>
<td>32</td>
<td>M</td>
<td>Movie, drama, and shopping</td>
<td>Very Often</td>
<td>Reception</td>
<td>High quality</td>
</tr>
<tr>
<td>IT employee</td>
<td>24</td>
<td>F</td>
<td>Convenience</td>
<td>Very Often</td>
<td>High price of phone device</td>
<td>Convenience</td>
</tr>
<tr>
<td>IT employee</td>
<td>27</td>
<td>F</td>
<td>Time management during rush hours</td>
<td>Very Often</td>
<td>Underutilize</td>
<td>Information High quality</td>
</tr>
<tr>
<td>IT employee</td>
<td>28</td>
<td>F</td>
<td>TV broadcasting</td>
<td>Often</td>
<td>High price</td>
<td>Time management</td>
</tr>
<tr>
<td>Media manager</td>
<td>32</td>
<td>M</td>
<td>Watching TV</td>
<td>Very Often</td>
<td>Battery hours</td>
<td>Using inside subway</td>
</tr>
<tr>
<td>Media employee</td>
<td>30</td>
<td>F</td>
<td>TV broadcasting</td>
<td>Very Often</td>
<td>Reception problem</td>
<td>Good quality</td>
</tr>
</tbody>
</table>
Study Phase I - Responses

Respondents’ main reasons for purchasing DMB cell phones

- Search for information access
- Spot the latest trends
- For education-related purposes
- Watch TV during commute
- For entertainment – movies and shopping

Positive Responses

▲ Accessible anytime / anywhere
▲ Personalized
▲ Mobility Factor (not shared / fixed)
▲ Good for managing time

Negative Responses

▼ Expensive price factor
▼ Reception Problem
▼ Low battery usage
Authors develop questionnaire

The research instrument (5-point Likert scale):
2 pretests

1st Pretest
Administered the questionnaire to 25 graduate/undergrad students in Seoul

2nd Pretest
Conducted at a DMB phone service provider to ensure the content validity
Study Phase II Process

**Distribution of questionnaire**
Distributed the questionnaire to 300 randomly selected individuals who were inside/outside COEX and Korea Trade Center during a 5 week period of Jan. and Feb. 2005

**Usable Responses**
264 usable responses

**Layout of questionnaire**
2 page questionnaire:
3 sections and 32 questions

**Section 1: DMB Services**
**Section 2: Participants’ perceived values of DMB application services**
**Section 3: Demographics**
DMB Survey Participants

Gender
- Male: 46.6%
- Female: 53.4%

Age
- Teens: 19.3%
- 20s: 17%
- 30s: 19.7%
- 40s and older: 44%

Education
- Junior High graduates: 9.9%
- High School graduates: 5.3%
- College and/or graduates: 20.8%
- Graduate School and/or graduate: 64%

Occupation
- Students: 51.9%
- IT Staff: 4.1%
- Govt Employees: 4.9%
- Professionals: 15.2%
- Self-employed: 15.2%
- Housewife: 15.2%
- Others: 3%
Current DMB Cellular Phone Use in Korea
As of January/February 2005 (n=264)

Heard of DMB?
Yes (69.7%)
No (30.3%)

Use DMB?
Yes (20.1%)
No (79.9%)

Important factors for choosing DMB
- Price (54.2%)
- Video Quality (18.9%)
- Program Contents (10.2%)
- Device Quality (6.1%)
- Ease of Use (4.9%)
- Others (5.7%)

DMB Info Source
- TV (26%)
- Newspaper (20%)
- Internet (15%)
- Friends (6%)
- Others (33%)

Satisfaction
- Yes (62.2%)
- So-So (30.3%)
- No (7.5%)

Affected Industries
- Tourism (41.3%)
- Service (20.1%)
- Education (12.5%)
- PR/Shopping (15.9%)
- Game (9.8%)
- Leisure & Culture (16.3%)

Perceived Applications
- Merchandise (10.2%)
- Shopping (11%)

Heard of DMB?
Yes (69.7%)
No (30.3%)

Use DMB?
Yes (20.1%)
No (79.9%)
## Model Constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price</strong></td>
<td>PR1</td>
<td>• Price per program content</td>
</tr>
<tr>
<td></td>
<td>PR2</td>
<td>• Price per usage time</td>
</tr>
<tr>
<td></td>
<td>PR3</td>
<td>• Price of DMB phone</td>
</tr>
<tr>
<td><strong>Access/Usage time</strong></td>
<td>TM1</td>
<td>• Access time</td>
</tr>
<tr>
<td></td>
<td>TM2</td>
<td>• Air time</td>
</tr>
<tr>
<td></td>
<td>TM3</td>
<td>• How to use</td>
</tr>
<tr>
<td><strong>Program contents</strong></td>
<td>CO1</td>
<td>• Video quality of contents</td>
</tr>
<tr>
<td></td>
<td>CO2</td>
<td>• Audio quality of contents</td>
</tr>
<tr>
<td></td>
<td>CO3</td>
<td>• Variety of contents</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td>SE1</td>
<td>• After service of DMB equipment maker or service provider</td>
</tr>
<tr>
<td></td>
<td>SE2</td>
<td>• Performance of DMB phone device</td>
</tr>
<tr>
<td></td>
<td>SE3</td>
<td>• Credibility of DMB equipment maker or service provider</td>
</tr>
</tbody>
</table>
### Coefficient Alpha for Construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variables</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>PR1, PR2, PR3</td>
<td>.7970</td>
</tr>
<tr>
<td>Access/Usage time</td>
<td>TM1, TM2, TM3</td>
<td>.6218</td>
</tr>
<tr>
<td>Program contents</td>
<td>CO1, CO2, CO3</td>
<td>.8104</td>
</tr>
<tr>
<td>Service</td>
<td>SE1, SE2, SE3</td>
<td>.7081</td>
</tr>
</tbody>
</table>
Correlation Matrix for the Constructs

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>Usage time</th>
<th>Program contents</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access/Usage time</td>
<td>.296**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program contents</td>
<td>.454**</td>
<td>.497**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>.266**</td>
<td>.481**</td>
<td>.511**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**p<.01

The inter-construct correlation coefficients were all positive and significant at less than .01
The price factor is not an issue, if the user perceives the DMB program contents to be valuable. DMB service was affected by program contents (beta = 0.358, t-value = 5.689). H3 (and H2) were supported. H1 was not supported.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>t-value</td>
</tr>
<tr>
<td>Price</td>
<td>0.008</td>
<td>0.141 (sig = .888)</td>
</tr>
<tr>
<td>Access / Usage Time</td>
<td>0.300</td>
<td>5.104 (sig = .000)</td>
</tr>
<tr>
<td>Program Contents</td>
<td>0.358</td>
<td>5.689 (sig = .000)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.330</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td></td>
<td>42.602</td>
</tr>
<tr>
<td>sig.</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>
# DMB Phone Price and Associated Costs

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean of Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Groups</strong></td>
<td>11.161</td>
<td>3</td>
<td>3.720</td>
<td>12.583</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>76.879</td>
<td>260</td>
<td>.296</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88.040</td>
<td>263</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The difference is statistically significant
- Significant differences among teens and the other age groups (20s, 30s, 40s and older)

H4a was supported

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Subset for alpha = .05</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>40s and older</td>
<td>51</td>
<td>4.0261</td>
<td></td>
</tr>
<tr>
<td>20s</td>
<td>116</td>
<td>4.2328</td>
<td></td>
</tr>
<tr>
<td>30s</td>
<td>52</td>
<td>4.3269</td>
<td></td>
</tr>
<tr>
<td>Teens</td>
<td>45</td>
<td></td>
<td>4.6889</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td>1.000</td>
<td>.354</td>
</tr>
</tbody>
</table>
### Access/Usage Time

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean of Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Groups</strong></td>
<td>2.943</td>
<td>3</td>
<td>.981</td>
<td>2.502</td>
<td>.060</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>101.935</td>
<td>260</td>
<td>.392</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104.878</td>
<td>263</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- No difference between age groups and their perceptions of the DMB
- A slight discrepancy between teens and those in their 20s, but no significant divergences among other age groups

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Subset for alpha = .05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>20s</strong></td>
<td>116</td>
<td>3.7328</td>
</tr>
<tr>
<td><strong>30s</strong></td>
<td>52</td>
<td>3.8269</td>
</tr>
<tr>
<td><strong>40s and older</strong></td>
<td>51</td>
<td>3.8627</td>
</tr>
<tr>
<td><strong>Teens</strong></td>
<td>45</td>
<td>4.0296</td>
</tr>
<tr>
<td><strong>Sig.</strong></td>
<td></td>
<td>.298</td>
</tr>
</tbody>
</table>

H4b was not supported
**Program contents**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean of Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Groups</strong></td>
<td>5.870</td>
<td>3</td>
<td>.1.957</td>
<td>6.304</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>80.689</td>
<td>260</td>
<td>.310</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>86.559</td>
<td>263</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- There was a difference between various DMB program contents and age groups
- Significant deviation between 10s and the other age groups (20s, 30s, and 40s and older)

**Age**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Subset for alpha = .05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>20s</strong></td>
<td>116</td>
<td>4.2902</td>
</tr>
<tr>
<td><strong>30s</strong></td>
<td>52</td>
<td>4.3013</td>
</tr>
<tr>
<td><strong>40s and older</strong></td>
<td>51</td>
<td>4.3268</td>
</tr>
<tr>
<td><strong>Teens</strong></td>
<td>45</td>
<td>4.6963</td>
</tr>
<tr>
<td><strong>Sig.</strong></td>
<td></td>
<td>.743</td>
</tr>
</tbody>
</table>

H4c was supported
- There was a difference between the age groups and their approach to the importance of DMB services
- Significant differences among teens and other age groups

H4d was supported
Findings

- The major players in the DMB market should focus their strategy towards the young generation, as they will develop great demand as the latest trendsetters.
- High-quality and valuable DMB program Contents will offset the highly priced DMB Phone price/usage cost.
Fundamental Competitive Strategies

- Cost Leadership Strategies
- Differentiation Strategies
- Innovation Strategies
- Growth Strategies
- Alliance Strategies
Strategy: LIP

- **Listen** - what customers want/need
  (e.g., CRM – complaints, battery life, reception/quality)

- **Invent** - for customers

- **Personalize** - making it easier and pleasant
Future Success of Cellular Phone Business

- Technical
  - Network Service Providers
- Service Developers
- Government
- Users / Consumers
- Equipment Makers

- Logistical
- Cultural
Thanks!
Any questions or comments?