Knowledge, Economy and Islamic Finance
A New-Institutional Economics Perspective

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Agenda

- Role of Knowledge in the Economy
- Status of Knowledge in the Muslim/Arab World
- Implications for Islamic Finance
- Way Forward & Conclusion
Knowledge in Economics

- Role of knowledge in economy viewed in different ways
- New Growth Theory—role of knowledge & technology in economic growth
- New Institutional Economics (NIE)—takes a broad/comprehensive view of economies
- Studies the structure and evolution of economies
- Uses four levels of analysis
  - Culture
  - Institutions
  - Organizations
  - Markets/transactions
Culture

- ‘Patterns of thinking, feeling and acting—software of the mind’ (Hofstede & Hofstede)
- ‘...the means by which people communicate, perpetuate, and develop knowledge about attitude towards life’ (Geertz)
- ‘All human contributions to ideas, perceptions, customs, socio-political systems, and economic constructs’ (Arab HDR 2003)

Culture can be viewed at 3 levels
- Core—believes and assumptions of human existence
- Middle layer—values and norms
- Explicit—outward appearances, consumption patterns
Institutions

- The nature of polity, state, constitution, laws, justice system, etc.
- Would include public institutions like the executive, judiciary, legislation, courts, and bureaucracy
- Determines human/political rights and rule of law
- Defines property rights and rules of their exchange
Organizations

- Groups of individuals with common purpose of achieving certain goals (firms, nonprofits, schools, unions, etc.)
- Structure and governance issues
- Efficiency and incentive structures
  - Minimization of transactions costs and risks
Markets/Transactions

- Allocation and exchange of resources, goods and services takes place
- Demand, supply and markets
- ‘Nexus of contracts’
- Technology, prices, costs, risks, etc. determine the type of products and contracts used in markets
Intrinsic Evolution

- Starts at culture (A₁, A₂, A₃)
- Culture entails knowledge
- Stock and production of knowledge determines institutions/organizations
- Speed and direction of change of economies depend on rate and kind of knowledge produced, respectively
Marginal Adaptation

- Starts at the transactions/organizations levels (B₁, B₂, B₃)
- Change in preferences/technology—niche market
- Organizations/institutions adjust to meet demand
NIE and Economies

- **NIE**—Knowledge is embedded in cultures, institutions, organizations and products
  - **Intrinsic** evolution & economies
    - Culture of learning/innovation
    - New knowledge reflected in institutions and organizations
    - Produces/consumes knowledge-based products & services
  - **Marginal** adaptation & economies
    - Cultures slow to produce/use knowledge
    - Stagnant institutions and organizations
    - Factor/commodity based economies
    - Passive consumers of knowledge-products
Knowledge Concepts

- **Knowledge wealth vs. knowledge capital**
  - Knowledge wealth—sum total of knowledge assets
  - Knowledge capital—part of the knowledge wealth used to produce new knowledge
    - World Bank KI: Education index, Innovation index, ICT index

- **Knowledge creation goes through a process**
  - Data—raw descriptions/observations about past, present and future worlds
  - Information—patterns identified in data
  - Knowledge—product resulting from human reflection and efforts
    - Not all knowledge creates value—useful knowledge

- **Explicit (know-what) vs. Tacit knowledge (know-how)**
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Knowledge in Muslim World—Past

Islamic knowledge creation reached zenith in the 10th century and remained at a high level until the 15th century.

“There is no other concept that has been operative as a determinant of Muslim civilization in all its aspects to the same extent as *ilm*. *Ilm* is Islam...”

(Rosenthal 2007)
Knowledge in Muslim World—Present

Starting 15th century—knowledge creation in the Muslim world stagnated

The Muslim mind lost its ‘ability to give birth to new ideas, to update its institutions, and to produce the planning, means and policies essential to further progress at the civilizational level’ (AbuSulayman 1993)
## Arab World (AW) and Knowledge Wealth

### Adult Literacy Rates 2011 (%)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Total</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>84.1</td>
<td>79.9</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>79.8</td>
<td>74.2</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>91.6</td>
<td>90.9</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>94.7</td>
<td>92.5</td>
</tr>
<tr>
<td>South &amp; West Asia</td>
<td>62.8</td>
<td>51.9</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>59.1</td>
<td>50.6</td>
</tr>
<tr>
<td>Arab States</td>
<td>76.9</td>
<td>68.4</td>
</tr>
</tbody>
</table>

Source: UNESCO Institute of Statistics, May 2013
## AW and Knowledge Wealth
### Illiterate Population 15 yrs & above (ml.)

<table>
<thead>
<tr>
<th>Regions</th>
<th>2011</th>
<th>2015 Projection</th>
<th>2015 Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Fem</td>
<td>Total</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>763.9</td>
<td>487.4</td>
<td>733.8</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>89.5</td>
<td>63.1</td>
<td>76.0</td>
</tr>
<tr>
<td>South &amp; West Asia</td>
<td>407.0</td>
<td>259.669</td>
<td>381.9</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>181.9</td>
<td>111.4</td>
<td>191.4</td>
</tr>
<tr>
<td>Latin America &amp; Carr.</td>
<td>35.6</td>
<td>19.6</td>
<td>32.7</td>
</tr>
<tr>
<td>Arab States</td>
<td>47.60</td>
<td>31.5</td>
<td>47.63</td>
</tr>
</tbody>
</table>

Source: UNESCO World Education Indicators, May 2013
Gender disparities in primary and secondary education vary within regions

Countries making progress toward gender equity in education (% of countries in region)

Developing countries (139 countries)  East Asia & Pacific (24 countries)  Europe & Central Asia (21 countries)  Latin America & Caribbean (26 countries)  Middle East & North Africa (13 countries)  South Asia (8 countries)  Sub-Saharan Africa (47 countries)

- Target met
- Moderately off target
- Sufficient progress
- Insufficient progress
- Seriously off target
- Insufficient data

### AW and Knowledge Wealth Quality Math Skills Grade 8 (2011)

<table>
<thead>
<tr>
<th>AW</th>
<th>Average</th>
<th>Other Countries</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE</td>
<td>456</td>
<td>Singapore</td>
<td>611</td>
</tr>
<tr>
<td>Lebanon</td>
<td>449</td>
<td>Korea, Rep. of</td>
<td>613</td>
</tr>
<tr>
<td>Tunisia</td>
<td>425</td>
<td>Hong Kong</td>
<td>586</td>
</tr>
<tr>
<td>Qatar</td>
<td>410</td>
<td>Taiwan</td>
<td>609</td>
</tr>
<tr>
<td>Bahrain</td>
<td>409</td>
<td>Japan</td>
<td>570</td>
</tr>
<tr>
<td>Jordan</td>
<td>406</td>
<td>Israel</td>
<td>516</td>
</tr>
<tr>
<td>Palestinian N.A.</td>
<td>404</td>
<td>Russia</td>
<td>539</td>
</tr>
<tr>
<td><strong>Saudi Arabia</strong></td>
<td><strong>394</strong></td>
<td>United States</td>
<td><strong>509</strong></td>
</tr>
<tr>
<td>Morocco</td>
<td>371</td>
<td>England</td>
<td>507</td>
</tr>
</tbody>
</table>

Source: TIMSS 2011 (Boston University)
## AW and Knowledge Capital

### R&D Expenditures (2011)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Global R&amp;D Exp. Share % (2009)</th>
<th>R&amp;D Exp. as % of GDP</th>
<th>Researchers /million inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td></td>
<td>1.8</td>
<td>1,027</td>
</tr>
<tr>
<td>North America</td>
<td>32.7</td>
<td>2.7</td>
<td>4,653</td>
</tr>
<tr>
<td>Europe</td>
<td>28.5</td>
<td>1.9</td>
<td>2,691</td>
</tr>
<tr>
<td>Asia</td>
<td>33.0</td>
<td>1.6</td>
<td>660</td>
</tr>
<tr>
<td>Africa</td>
<td>0.9</td>
<td>0.4</td>
<td>144</td>
</tr>
<tr>
<td>Arab States (Africa)</td>
<td>0.3</td>
<td>0.3</td>
<td>415</td>
</tr>
<tr>
<td>Arab States (Asia)</td>
<td>0.2</td>
<td>0.1</td>
<td>119</td>
</tr>
<tr>
<td>China</td>
<td>12.1</td>
<td>1.7</td>
<td>863</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.9</td>
<td>1.2</td>
<td>668</td>
</tr>
<tr>
<td>Israel</td>
<td>0.7</td>
<td>4.3</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: UNESCO Institute of Statistics 2012
## AW and Knowledge Creation
### No. of Patents 1980-2000

<table>
<thead>
<tr>
<th>AW</th>
<th>No.</th>
<th>Other Countries</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>6</td>
<td>South Korea</td>
<td>16,328</td>
</tr>
<tr>
<td>Egypt</td>
<td>77</td>
<td>Israel</td>
<td>7,652</td>
</tr>
<tr>
<td>Jordan</td>
<td>15</td>
<td>Chile</td>
<td>147</td>
</tr>
<tr>
<td>Kuwait</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oman</td>
<td>5</td>
<td>OIC -1.5% of world total (2009)</td>
<td></td>
</tr>
<tr>
<td><strong>Saudi Arabia</strong></td>
<td><strong>171</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syria</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAE</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yemen</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>370</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regions</th>
<th>KEI</th>
<th>KI</th>
<th>Countries (Rank)</th>
<th>KEI</th>
<th>KI</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>8.8</td>
<td>8.7</td>
<td>Sweden (1)</td>
<td>9.43</td>
<td>9.38</td>
</tr>
<tr>
<td>Asia</td>
<td>7.47</td>
<td>7.64</td>
<td>US (12)</td>
<td>8.77</td>
<td>8.89</td>
</tr>
<tr>
<td>Africa</td>
<td>4.74</td>
<td>4.51</td>
<td>UAE (42)</td>
<td>6.94</td>
<td>7.09</td>
</tr>
<tr>
<td>Latin America</td>
<td>5.15</td>
<td>5.31</td>
<td>Bahrain (43)</td>
<td>6.9</td>
<td>6.98</td>
</tr>
<tr>
<td>World</td>
<td>5.12</td>
<td>5.01</td>
<td>Oman (47)</td>
<td>6.14</td>
<td>5.87</td>
</tr>
<tr>
<td>MENA</td>
<td>4.74</td>
<td>4.51</td>
<td>Saudi Arabia (50)</td>
<td>5.96</td>
<td>6.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qatar (54)</td>
<td>5.84</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kuwait (64)</td>
<td>5.33</td>
<td>5.15</td>
</tr>
</tbody>
</table>

Source: KI and KIE Indexes, World Bank
KI: Education index, Innovation index, ICT index
KEI: KI, Economic and Institution Regime Index
Agenda

• Role of Knowledge in the Economy

• Status of Knowledge in the Muslim/Arab World

• Implications for Islamic Finance

• Way Forward & Conclusion
Islamic Economics & Finance

- Islamic economics launched in the 1976
- Provide a 'just and humane' alternative to the ideologies of capitalism and socialism
- Islamic economic system based on Islamic worldview would fulfill the *maqasid al Shari’ah*
- Value system of Islam would provide a better concept of economic development
  - Balance between growth and equity
- The application of Islamic economics ended up in the financial sector
  - Islamic banking sub-economies
  - IF growing rapidly, but questions about its objectives and quality being raised
## Expectations of Stakeholders

<table>
<thead>
<tr>
<th>Importance of Islamic Banks Objectives</th>
<th>Not imp. at all (%)</th>
<th>Not imp. (%)</th>
<th>Do Not Know (%)</th>
<th>Imp. (%)</th>
<th>Very imp. (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prohibition of <em>riba</em></td>
<td>0.0</td>
<td>1.0</td>
<td>5.2</td>
<td>24.9</td>
<td>68.8</td>
<td>4.61</td>
</tr>
<tr>
<td>Provide <em>Shari’ah</em>-compliant products</td>
<td>0.0</td>
<td>0.6</td>
<td>4.6</td>
<td>29.1</td>
<td>65.6</td>
<td>4.60</td>
</tr>
<tr>
<td>Promote sustainable development</td>
<td>0.2</td>
<td>1.0</td>
<td>16.6</td>
<td>50.3</td>
<td>31.9</td>
<td>4.13</td>
</tr>
<tr>
<td>Contribute to social welfare</td>
<td>0.6</td>
<td>2.9</td>
<td>15.7</td>
<td>50.1</td>
<td>30.6</td>
<td>4.07</td>
</tr>
<tr>
<td>Alleviating poverty</td>
<td>0.6</td>
<td>4.8</td>
<td>23.7</td>
<td>45.3</td>
<td>25.6</td>
<td>3.90</td>
</tr>
<tr>
<td>Maximising profits</td>
<td>2.1</td>
<td>11.1</td>
<td>16.1</td>
<td>50.3</td>
<td>20.3</td>
<td>3.76</td>
</tr>
</tbody>
</table>

Source: Mohd Nor (2012) (total respondents 477, Malaysia)
Knowledge and Islamic Finance

- Lot of ‘data’ and ‘information’ on Islamic law and financial principles that need to be used to create ‘knowledge’ that can be used to produce institutions, organizations and products

- Approaches to innovation
  - ‘Reverse engineering’—Islamic replications of a conventional products
  - ‘Innovative engineering’—come up with Shari’ah based products

- Bulk of the innovation is ‘Reverse Engineering’

- In a survey of 20 banks, only 8 (40%) indicated that they had a structured idea generation process
Evolution of Islamic Banking Models

- **Ideal Model:** Two-tier *Mudarabah* model
  - Profit-loss sharing modes of financing on both the asset and liability side

- **2nd Best Model:** One-tier *Mudarabah* with Multiple Investment Tools
  - Liability Side—PSIA (*Mudarabah* based)
  - Asset Side—multiple investment tools, dominated by fixed-income contracts (*murabahah, ijarah, istisna*, etc.)

- **3rd Best Model:** Fixed–Return Liability and Assets
  - Liability Side—Fixed-income investment accounts (using *tawarruq*)
  - Asset Side has multiple investment tools, dominated by *tawarruq*
## Maqasid Performance of IBs

<table>
<thead>
<tr>
<th>Papers</th>
<th>Shari’ah compliance</th>
<th>Stakeholders</th>
<th>Charitable Activities</th>
<th>Social &amp; Environmental Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamla &amp; Rammal (2013) (19 banks)</td>
<td>Good</td>
<td>Moderate</td>
<td>Insignificant</td>
<td></td>
</tr>
<tr>
<td>Haniffa &amp; Hudaib (2007) (7 banks)</td>
<td>Good</td>
<td>Good</td>
<td>Insignificant</td>
<td></td>
</tr>
<tr>
<td>Maali <em>et. al.</em> (2006) (29 banks)</td>
<td>Good</td>
<td>Moderate</td>
<td>Insignificant</td>
<td></td>
</tr>
<tr>
<td>Aribi &amp; Arun (2012) (9 banks)</td>
<td>Good</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>CONCLUSION</strong></td>
<td><strong>GOOD</strong></td>
<td><strong>GOOD/MOD.</strong></td>
<td><strong>MODERATE</strong></td>
<td><strong>INSIGNIFICANT</strong></td>
</tr>
</tbody>
</table>
IF: Reputation & Credibility

• Critics
  • ‘Deception’ and ‘charade’ (Saleem)
  • ‘Jurisprudential schizophrenia’ (Hamoudi)
  • ‘Legal hypocrisy’ (Holden)
  • ‘Rent-seeking Shari’a arbitrageurs’ using ‘ruses to circumvent prohibitions’ (ElGamal)

• Supporters
  • IFA—*tawarruq* not Shari’ah compliant (MN Siddiqi—harms outweigh benefits)
  • Y. Delorenzo—‘total return swap’ not acceptable from *Shari’ah* point of view
  • T. Usmani—most of the (partnership) *sukuk* issues not *Shari’ah* complaint
### Credibility of Islamic Finance

<table>
<thead>
<tr>
<th>Questions (no. of obs.)</th>
<th>1 (no. of obs.)</th>
<th>2 (no. of obs.)</th>
<th>3 (no. of obs.)</th>
<th>4 (no. of obs.)</th>
<th>5 (no. of obs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muslims have doubts about the banking products of IFIs (146)</td>
<td>71 (48.6%)</td>
<td>37 (25.3%)</td>
<td>28 (19.2%)</td>
<td>8 (5.5%)</td>
<td>2 (1.4%)</td>
</tr>
<tr>
<td>Muslims belief that Islamic banking is just change of names (147)</td>
<td>66 (44.9%)</td>
<td>49 (33.3%)</td>
<td>26 (17.7%)</td>
<td>5 (3.4%)</td>
<td>1 (0.7%)</td>
</tr>
<tr>
<td>IFIs are not meeting the financial needs of Muslims (146)</td>
<td>35 (23.9%)</td>
<td>61 (41.8%)</td>
<td>40 (27.4%)</td>
<td>7 (4.8%)</td>
<td>3 (2.1%)</td>
</tr>
</tbody>
</table>

1-Strongly Agree; 2-Agree; 3-No View/Neutral; 4-Disagree; 5-Strongly Disagree.

Source: Rahman (2012) (Survey done in UK)
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NIE and Islamic Finance

• Development of Islamic banking & finance took the **marginal adaptation** approach

• Islamic banking had to adjust to the existing institutional framework and organizational formats
  
  • The focus has been on products and contracts

• Without producing the knowledge to support the industry, the only alternative was to replicate conventional organizational model and products

• For healthy growth of Islamic finance, need to create institutions and organizations that reflect Islamic values and principles
Malaysia: An Example

• Vision 2020 (1991): to be a developed country by 2020

• Identified 9 challenges:
  • Sixth challenge: “establishing a scientific and progressive society, a society that is innovative and forward-looking, one that is not only a consumer of technology but also a contributor to the scientific and technological civilisation of the future.”
  • Eighth challenge: “Ensuring an economically just society. This is a society in which there is a fair and equitable distribution of the wealth of the nation, in which there is full partnership in economic progress.”
Malaysia—Vision for Islamic Finance

- 10-year Financial Sector Master Plan, 2000 (started implementation in 2001)
  - Develop a more resilient, competitive and dynamic financial system with best practices, that supports and contributes positively to the growth of the economy through the economic cycle
  - Target for Islamic finance: 20% of total financial assets would be Islamic
    - Achieved target 3 years before 2010 (in 2010—29% of assets were Islamic
    - Islamic finance value added to GDP in 2009 was 2.9% (compared to 0.3% in 2000)
- Financial Sector Blueprint 2011-2020
  - Advance Malaysia's thought leadership in Islamic finance
Malaysia—Institutional Environment for IF

- **Laws**
  - Islamic Banking Act 1983
  - *Takaful* Act Malaysia 1984
  - Central Bank of Malaysia Act 2009
  - Islamic Financial Services Act 2013
- **Robust *Shari’ah* Governance Regime**
  - *Shari’ah* Advisory Council established in 1997
  - Governance framework at the bank level
- **Regulatory Guidelines**
  - BNM: *Shari’ah* parameters, Product Development Guidelines, etc.
  - SEC: Guidelines on Islamic Fund Management, Guidelines on *Sukuk*, etc.
Knowledge Creation & Talent Development

• 2003—International Centre for Leadership in Finance (ICLIP)
• 2006—International Centre for Education in Islamic Finance (INCEIF)
• 2006—Financial Sector Talent Enrichment Programme (FSTEP)
• 2008—Financial Institutions Directors Education Programme (FIDE)
• 2008—International Shariah Research Academy for Islamic Finance (ISRA)
• 2008—Asian Institute of Finance
• 2010—ICLIF Leadership and Governance Centre
Malaysia

Knowledge Wealth and Capital

- Knowledge Wealth: 50 course providers and 18 universities offering Islamic finance degrees
  - ISRA and INCEIF
- Knowledge Capital Example: 9th International Conference in Islamic Economics & Finance 2013
  - 108 of the 303 English papers submitted were from Malaysia (35.6%)
  - 24 out 84 papers presented were from Malaysia (28.6%)

Note: Population of Malaysia is 29 ml (1.8% of IDB Member Counties 1,601 ml.)
Concluding Remarks

- NIE—strong interplay of knowledge and economic development
- Due to lack of knowledge creation, IF has been marginal adapter
  - Lack of institutions, organizations and products reflecting appropriate values and norms
- Moving forward
  - Among NIE levels, culture inheres in humans
  - Other levels (institutions, organizations and markets/products) are created by humans/society
  - Culture of knowledge needs to be inculcated—culture changes slowly
Concluding Thoughts

• Two facts
  • Rejection of the printing press for almost 300 years (1450 vs. 1727)
  • In 5 years (1980s)—4.4 books/ml inhabitants translated into Arabic (Hungary 519/ml; Spain 920/ml)

• Two Questions
  • Is culture impediment to knowledge-creation and development?
  • SDGs will be launched in 2015 and require huge funds—how will Islamic finance contribute to achieving the SDGs?