Modelling and measuring the impact of heritage: a multi-level holistic approach

Jim McLoughlin, Jaime Kaminski and Babak Sodagar
CUBIST Research, Brighton Business School, University of Brighton
Brian Smith, European Association of Historic Towns and Regions
Summary of presentation

- Research objective
- Levels of impact modelling (from city to site to technology investment)
- Holistic impact model at site level
- 6Cs Heritage Impact training framework
- Cost /complexity dilemma in measuring impact.
- City Model (prototype) – heritage led development and technology
- Summary of key outcomes
- Post-EPOCH strategy
“To develop models suitable to assist owners and managers of monuments, sites and museums to make business decisions on technological investments and to improve policy makers understanding of the necessary conditions for successful investment.”
A multi-level holistic approach

Holistic model 2
ICT investment decisions

Holistic model 1
Heritage sites

Holistic model 3
Prototype city-level regeneration (Period 4)

Outcomes

Indicators

Reporting

Individual (+/-)

Individual (+/-)

Economic (+/-)

Economic (+/-)

Social (+/-)

Social (+/-)

Environmental (+/-)

Environmental (+/-)

Managers

Policy makers
Holistic Impact Measurement Model

C1. Conceptualise and understand

CHS impact context
- Macro environment (funding, policy, legal, social, tech context)
- Local environment (local demographic, political, funding, competition, infrastructure, social needs, user/client influence)

Mission, values, vision and objectives
- Who is it serving?
- Who should it serve?
- Priorities regarding impacts

Organisational context
- Ownership, governance, scale, location, product/service offer
- Mission-led drivers (Resources, Operations, HRM, and organisational culture)
- Financial, Marketing, Technology strategy
- Networks, alliances & partnerships

Management decision making
- Strategic choice and implementation

C2. Checklist of impacts for measurement

C3. Choose indicators/methods

C4. Collect data

C5. Comprehend and Communicate

C6. Change

Stakeholders
- Who has a direct interest?
- Who has the power to influence change?
- What priorities and impacts are desired?

Feedback loop

Outcomes
- Individuals (+/-)
- Economic (+/-)
- Social (+/-)
- Environmental (+/-)

Indicators
- Individual (+/-)
- Economic (+/-)
- Social (+/-)
- Environmental (+/-)

Analysis
Impact framework

Impact

Economic
Social
Environmental

GDP Impacts
Spending by users at the cultural heritage site itself, causing an increase in GDP in the defined study area (e.g., local, regional, or national).
- To include:
  - Direct effects
  - Indirect effects
  - Multiplier effects
- Tourism and branding
- Business location
- Regeneration
- Employment

Social/educational
Educational including all impacts relating to learning and education
- Identity at the local, regional, and national levels
- Community cohesion and pride (these include issues of social inclusion)
- Scholarship and research — research output from cultural heritage sites usually measured by academic papers produced, etc.
- Quality of life enhancement

Environmental
Sustainability — support of the local environment caused by funding derived from heritage assets
- Degradation to the fabric of a cultural heritage site
- Congestion within the cultural heritage site
- Pollution, erosion, and congestion within the defined locality of a cultural heritage site
- Carbon footprint
- Recycling

Individual

Direct use
Visitors to cultural heritage sites
- Spending (economic impact)
- Visitor satisfaction

Indirect use
Books and periodicals
Virtual (e.g., Internet) users

Non use
Existence value
Bequest value
Altruistic value
Option value
Prestige value
Uses of the Holistic Impact Model

- Maps the key elements of organisational activity
- Identifies main drivers of impact (mission, external, Internal and stakeholders)
- Summarises the key impact dimensions
- Helps prioritise which impacts to measure.
- It helps to develop measures of heritage site and ICT impact (e.g. key impact indicators)
- Enables selection of appropriate impact measurement method
- Business/strategic planning tool to help improve performance
- Training tool
6Cs Heritage Impact Training (HIT) Model

- **Conceptualise** and understand the impact problem

- **Change** Strategies, operations, and business processes

- **Comprehend** and communicate

- **Collect** Impact data

- **Checklist** of perceived/desired impacts

- **Choose** Impact indicators against agreed criteria

The 6Cs HIT model
Impact measures – what cost/complexity?

Economic cost/complexity:
- Visitor profile
- Visitor numbers
- Expenditure at site
- Willingness to Pay (site valuation) GDP

Social cost/complexity:
- Visitor numbers
- Socio-economic group
- Community benefits
- Cultural identity Social cohesion

Cost
Complexity
The challenge & future research agenda

The cost/complexity challenge

Cost

Complexity
Key attributes of the impact models

- Robust basis for conceptualising impact
- Holistic
- Dynamic
- Flexible
- Strategic and operational
- Importance of site context
- Key role of stakeholders
- Multi level approach

A practical tool for heritage site managers and policy makers
February 2008 - Key outcomes

- Socio-economic impact measurement models:
  - ICT investment model
  - Site impact model
  - City model (prototype)
- 6Cs heritage impact training pack and training
- 3 Heritage Impact conferences organised (2005-2007)
- Alliances with social enterprises
- Publications: 4 books
  - UNESCO/EPOCH book (pending 2008)
  - 2 books in the Heritage Management Series (2007)
  - Heritage Impact 2005
  - Numerous conference papers
Adoption of the models

- The model is one of the foundations for the new UNESCO network on socio-economic impact
- Cleveland Museum of Art – ICT adoption
- University of Queensland – foundation for ICT-related bid
- The model was incorporated into a consultancy report for the Comunidad de Valencia
- Ph.D. thesis department of economics the Universidad Politécnica de Valencia y Universidad de Las Palmas de Gran Canaria
- The model is planned to be taught in the University of Turino, as part of their World Heritage course in partnership with UNESCO
- Taught at the University of Valencia as part of a Masters program (14 February 2008)
- EAHTR – planned incorporation in a future bid (city model)
• Training for the heritage sector
• Joint EPOCH-ATLAS (Association of Tourism and Leisure Education) heritage conference in 2-4 July 2008
  ▪ The first time this European conference has been run in the UK
• Alliances with social enterprises and the use of the model as a measurement tool
  ▪ To be rolled out across the UK after initial testing with 43 social enterprises (the model is used in the real world)
• Research agenda
  ▪ Influencing future research direction in the sector
• Maintain and develop networks
  ▪ UNESCO – socio-economic impact network (next meeting autumn 2008)
  ▪ EAHTR – city model development.
A multi-level holistic approach

Holistic model 2
ICT investment decisions

Holistic model 1
Heritage sites

Holistic model 3
Prototype city-level regeneration (Period 4)

Indicators

Outcomes

Environmental (+/-)

Social (+/-)

Economic (+/-)

Individual (+/-)

Policy makers

Managers

Reporting

Environmental (+/-)

Social (+/-)

Economic (+/-)

Individual (+/-)
A holistic investment contingency model for technology impact evaluation at CH sites

CHS technology impact context

- Expectations
- Outcomes

Strategic rationale for technology investment

- Strategic evaluation
- Added value?
- Lessons from implementation

Specific objectives/appraisal of technological investment

- Met objectives?

Management decision making

- Quality of implementation drives impact (critical success factors)

Socio-economic impacts and outcomes of technological investment

- Social/private return on investment
- Relevant metrics
A holistic investment contingency model for technology impact evaluation at CH sites

CHS technology impact context
Macro environment: Economic, policy, legal, technological and cultural contexts
Local environment: political, demographic, funding, competition, infrastructure
Site: scale, location, funding, ownership, governance, quality of offer
Technological advances

Strategic rationale for technology investment
Vision for investment
Selection criteria including:
- Suitability — strategic logic
  - fits mission and values?
  - stakeholders
- Feasibility — risk assessment
  - resources and capability
  - budget

Specific objectives/appraisal of technological investment
Purpose of technology investment
Type/use of technology
Why specific technology chosen?
Anticipated costs and benefits
(Capital and operating costs)

Socio-economic impacts and outcomes of technological investment
Individual(+/-)
Economic(+/-)
Social(+/-)
Environmental(+/-)
Direct use
Direct
Cultural identities
Aesthetics
Indirect use
Indirect
Inclusion/access
Education
Pollution
Congestion

Management decision making
- Technology strategy
- Technology management
  - design, installation and implementation
  - technology project management
- Financial/business models
- Marketing strategy/target audiences
  - user evaluation and research

Experiences
Added value?
Met objectives?

Lessons from implementation
Social/private return on investment

Quality of implementation drives impact (critical success factors)
Research methodology

The laboratory case
(One site devoted to the testing of various methodologies)
The Royal Pavilion Palace, Brighton
Testing various impact/outcome methods
Testing the Holistic and ICT models

Influences on model evolution
Primary case research with heritage site managers:
e.g. British Museum
Ename, Turin, Dieppe
Museum of the Iron Age, etc

Inductive evolution of models
Case testing

Site Model → 6Cs HIT model → ICT Model

Individual cases
Focusing on specific technology cases
Focusing on specific methods

Influences on model evolution
Heritage Impact 2005, 2006
VAST, CAA
EAHTR
English Heritage
Conferences
On site research
NoECs
A city model for heritage-led development

A holistic economic development strategic analytical framework

- **Macro-contextual analysis**
  - National, regional, local policy legal and regulatory environment

- **Micro-contextual analysis**
  - Competitive environment
  - Customers, markets, segmentation
  - Tourist destination? Day trips/stayers
  - Planning regulations

- **City strategic vision and plan**
  - (City tourism and heritage levels)
  - Mission
  - Objectives
  - Stakeholder analysis

- **Tourism strategic choice and direction**
  - Integrated strategic planning
  - Partnership building
  - Tourist product development
  - Branding and marketing strategy
  - Target market and market segmentation
  - Creating a sense of place

- **Cultural heritage strategic development**
  - Asset development
  - Cultural events
  - Marketing
  - Enhancing the visitor experience
  - Balancing community identity with tourism

- **Impact/evaluation metrics**
  - Economic +/-
  - Social +/-
  - Environmental +/-
  - Developing sustainability

- **Tourism resources & capabilities**
  - Audit of tourism assets
  - Audit of cultural heritage assets
  - Current tourist product offer
  - Current cultural product offer

- **Cultural technology strategy**
  - Enabling realisation of tourism strategy
  - Has a role in:
    - Branding/marketing
  - Integrating the cultural heritage & tourism offer
  - Enhancing the visitor experience—pre-visit and visit (e.g., web, audioguides, display technologies)