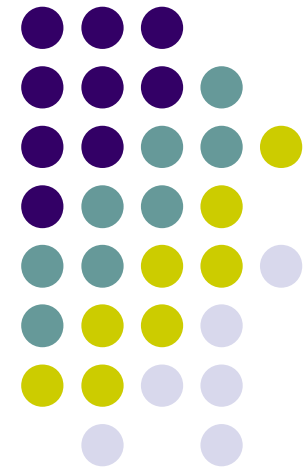


Understanding the Sustainability and Feasibility of E-health

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What is E-Health?



- | Many definitions exist:-
- | Informally – Use of Internet Technologies to facilitate healthcare practice
- | According to WHO
 - | **“...the leveraging of the information and communication technology (ICT) to connect provider and patients and governments; to educate and inform health care professionals, managers and consumers; to stimulate innovation in care delivery and health system management; and, to improve our healthcare system...”**

What is E-Health?



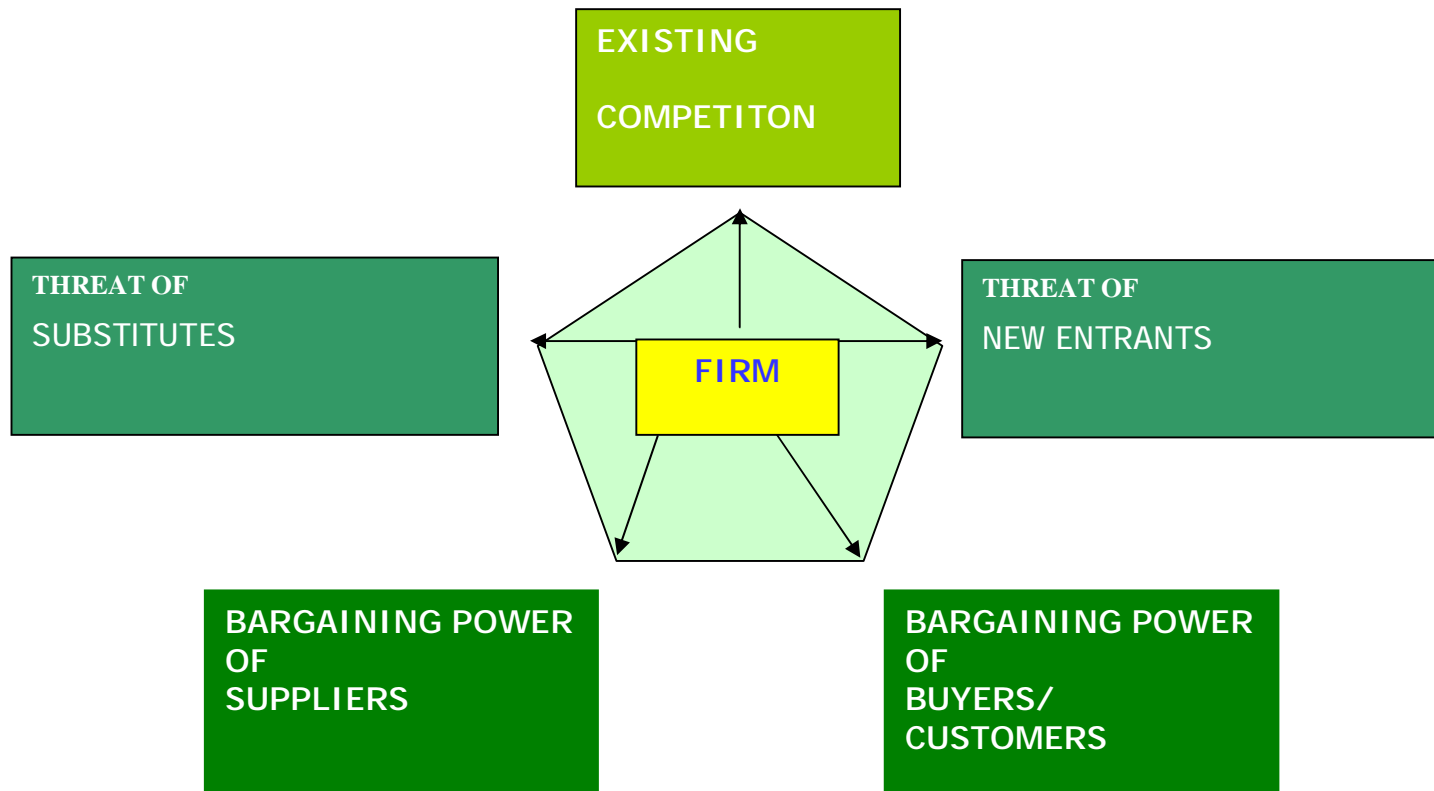
- | According to Intel
 - | **“a concerted effort undertaken by leaders in healthcare and hi-tech industries to fully harness the benefits available through convergence of the Internet and healthcare.”**
- | Many dimensions
 - | Medical informatics, IT, Public health and Business practices, other related e-commerce technologies.



Research Questions?

- | What are the competitive forces affecting an e-Health organization?
- | Is competition constrained by external considerations?
- | Can an e-health organization be sustained?
How?

Traditional Competitive Forces

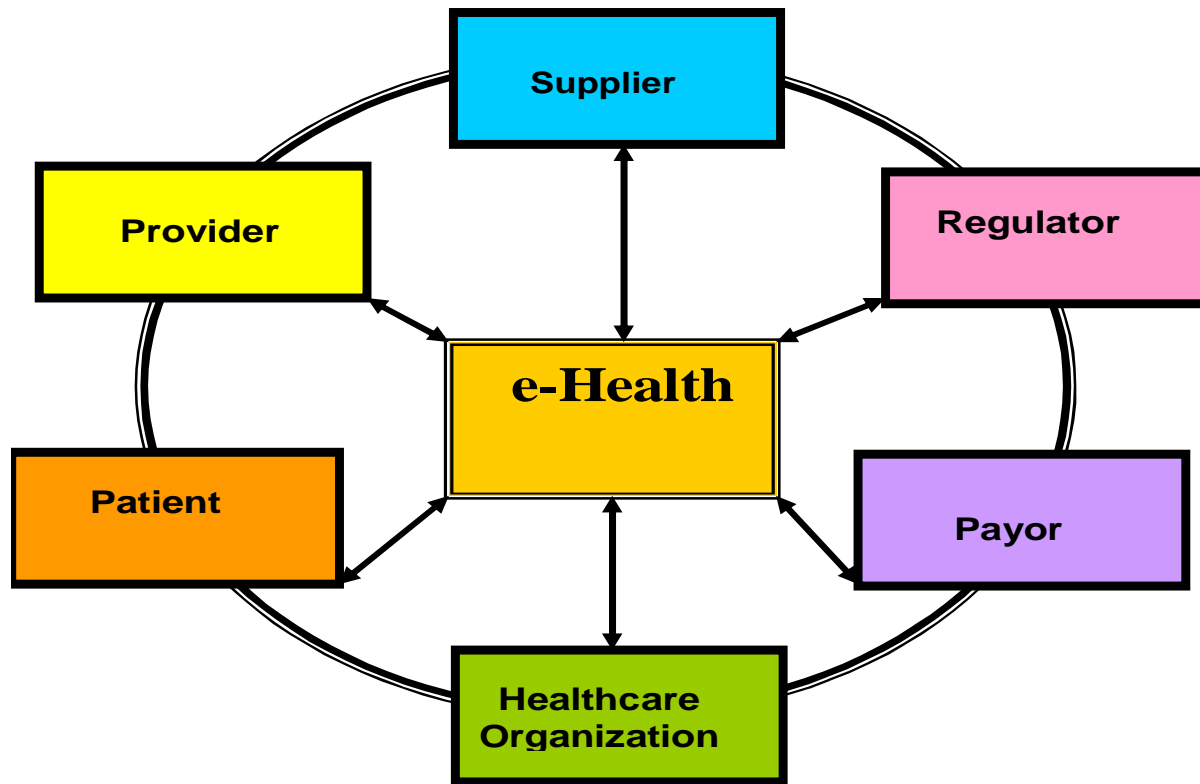


Mediating Role of the Internet in Healthcare Operations

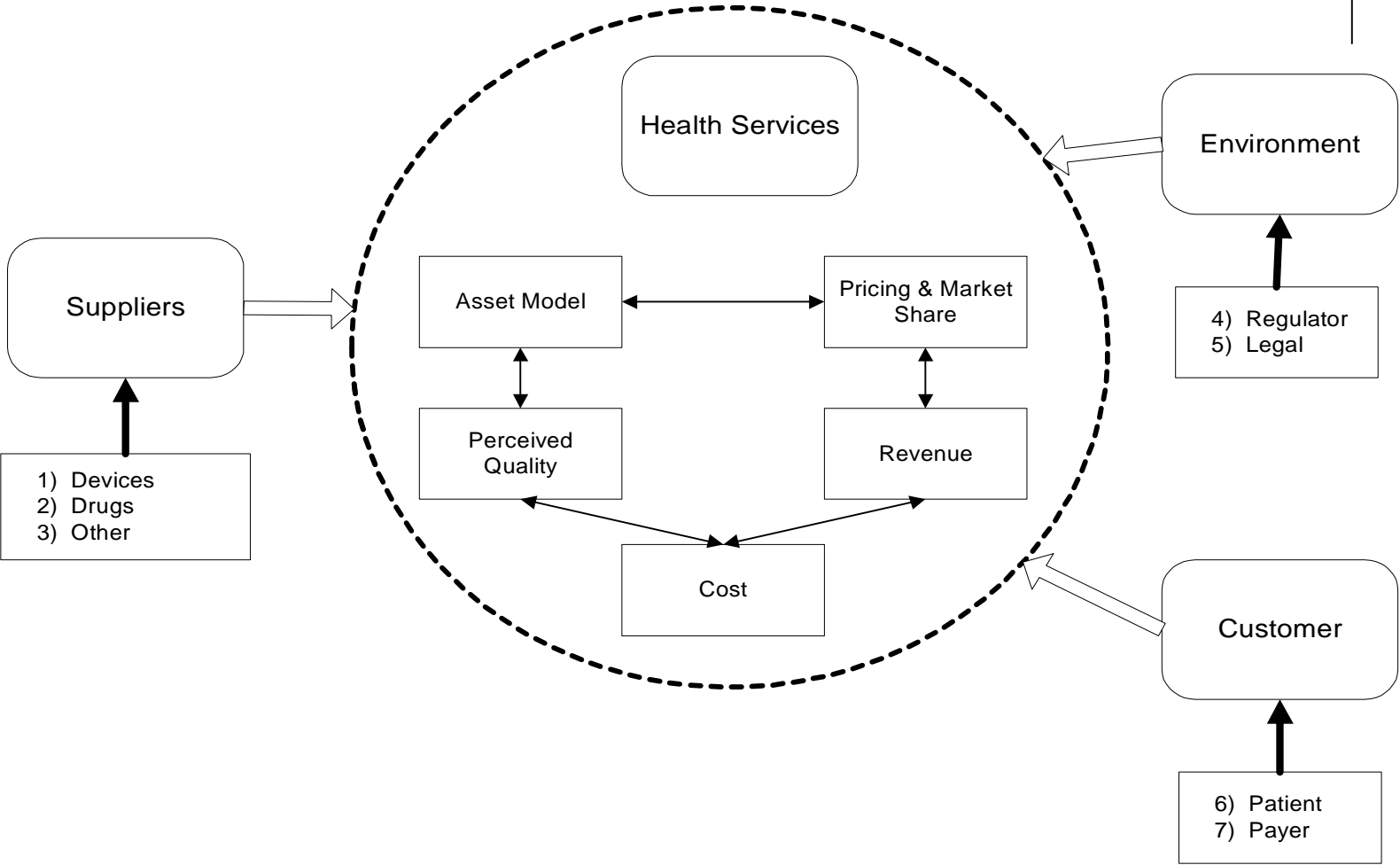


Domain	Components
e-operations	<ul style="list-style-type: none">• Internet-based supply purchasing• Prescription writing, formulary checking, and interaction checking using hand-held devices
e-marketing	<ul style="list-style-type: none">• Delivery of consumer health content and wellness management tools over the Internet• Use of consumer health profiles to suggest disease management and wellness programs
e-services	<ul style="list-style-type: none">• Patient-provider communication and transaction applications• Web-based applications to support the clinical conversation between referring and consulting physicians
Crossing multiple domains	<ul style="list-style-type: none">• Increasing the level of information content in the product• Increasing the information intensity along the supply chain• Increase in the dispersion of information

Web of e-Health Players



Component Model for e-Health



Key areas of Sustainability



Primary Area	Key Factors
Competitive Positioning	<ul style="list-style-type: none">• Product/Service• Competition and Industry Structure• Healthcare Consumer Value
Economic Positioning	<ul style="list-style-type: none">• Revenue Model• Cost Model
Enterprise Resource	<ul style="list-style-type: none">• Asset Model• People and Partners• Processes• Technology



Demand Components

Demand Type	
Current Market Share	<ul style="list-style-type: none">• Pre e-health network state.• The baseline from which growth can occur due to e-health.
Market of potential customers	<ul style="list-style-type: none">• Potential larger market
New Market Share	<ul style="list-style-type: none">• Entry into e-health segment• A complementary channel of service delivery.• Additional channel For a brick and mortar organization• For purely e-health networks, any gain is a new market share.



Revenue Components

Revenue Type	
Product or Services Sales	<ul style="list-style-type: none">• Sales of Goods or services.
Advertising	<ul style="list-style-type: none">• Hosting, Banner, Click through
Subscription Fee	<ul style="list-style-type: none">• Subscriptions for products & services
Membership Fee	<ul style="list-style-type: none">• Memberships to interest groups
Commissions or Transaction fee	<ul style="list-style-type: none">• Commission as an agent or broker for facilitating the selling of partner organizations products and services
Insurance fee	<ul style="list-style-type: none">• Reimbursement from insurance providers



Cost Components

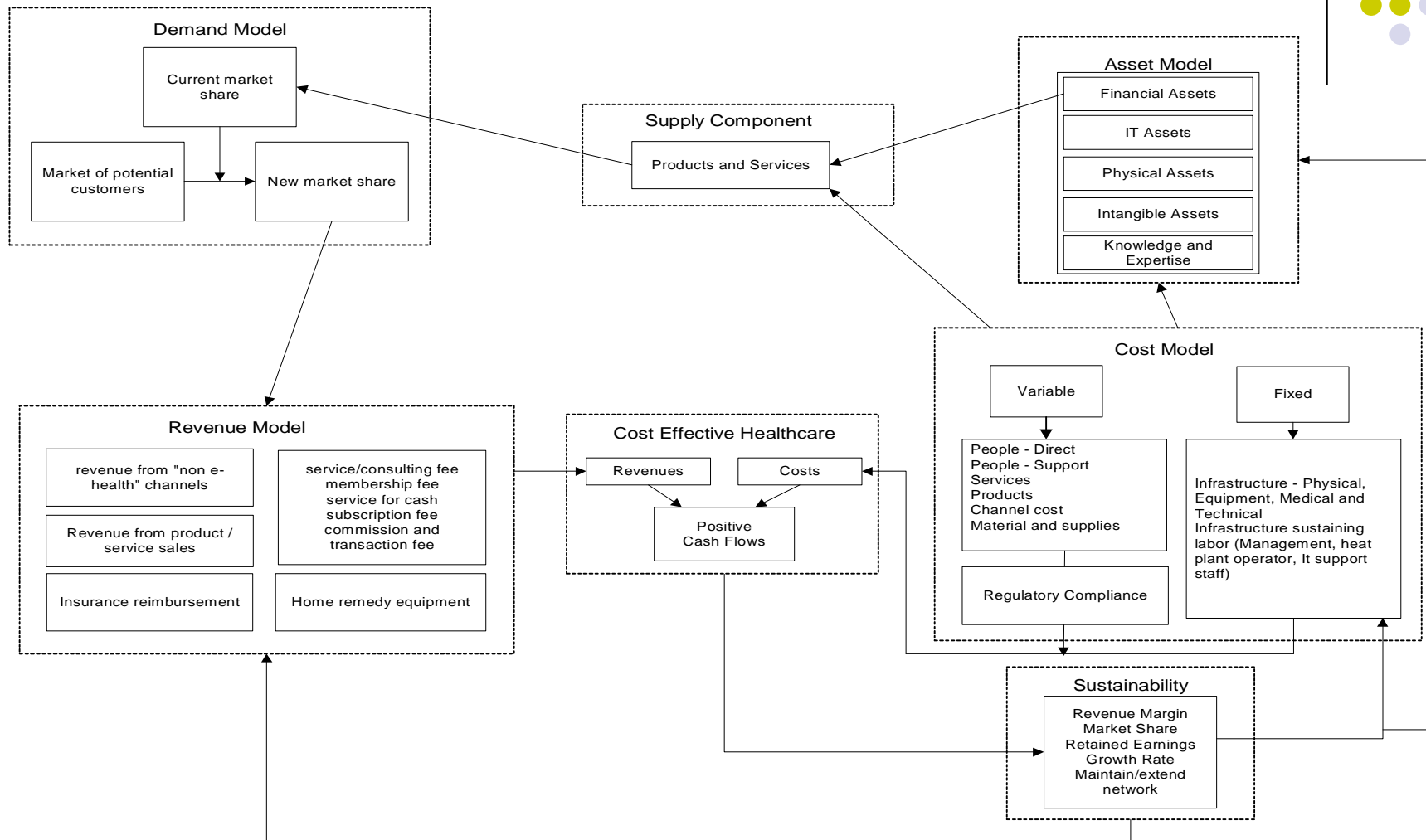
Cost Type	
People	<ul style="list-style-type: none">• Salaries and benefits including cost of hiring, developing and training and operational costs.
Advertising or Marketing expenses	<ul style="list-style-type: none">• Identifying consumers and markets• All channel costs to deliver non-electronic services.
Commissions or Transaction Fees cost	<ul style="list-style-type: none">• Commissions or transactions' fees to agents or brokers
Material and Supplies	<ul style="list-style-type: none">• Procurement, cost of goods
Physical infrastructure	<ul style="list-style-type: none">• Facilities, equipment, utilities
IT infrastructure	<ul style="list-style-type: none">• Computer, network costs, internet subscription, development cost, operating and maintenances cost



Asset Components

Asset Type	
Financial assets	<ul style="list-style-type: none">• Balance sheet, cash flows
Physical assets	<ul style="list-style-type: none">• Plants, equipment etc.
IT Assets	<ul style="list-style-type: none">• Information Technology infrastructure
Intangible assets	<ul style="list-style-type: none">• Relationships with partner organization, agility and strength of brand etc.
Intellectual assets	<ul style="list-style-type: none">• Knowledge and expertise of key participants, patents and copy rights, tacit knowledge.

Sustainability Model



Other Issues of Sustainability



- | Government Rules
- | Asymmetric information
- | Moral hazard
- | User vs payer of services



Es in e-health

- | Equity
- | Efficiency
- | Effectiveness
- | Equality
- | Evidence based
- | Environment
- | Electronic
- | Educational



Initial conclusions

- | For e-health to be truly sustainable we need:
 - | All key healthcare actors to work together
 - | Integrated, systems view of technology, thus data can be transmitted easily between entities and departments
 - | Robust security which in turn support a high level of trust and confidence
 - | User friendly systems that support healthcare delivery



| Thank you

| Questions?