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Original Article

Two Kinds of Fit: Decomposing Institutional Compatibility in Cross-Border Health-Technology Transfer Between the United States, United Kingdom, and India

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Abstract: *Explanations of why health technologies succeed or fail across borders usually rest on one idea: an innovation must fit the institutions of the market it enters. This paper argues that the idea hides two different relationships. Delivery-system fit is the match between a technology and the clinical, regulatory, payment and workforce arrangements of the health system that uses it. Capital-formation fit is the match between a venture's costs and growth timeline and the expectations of whoever finances it, who may sit in a different country from both the venture's founders and its patients. Delivery fit belongs to a venture in a particular destination; capital fit belongs to the venture as a whole and travels with it into every destination at once. Four documented cases linking the United States, the United Kingdom, India, Rwanda and the Cayman Islands show the two layers diverging. Babylon Health's Rwandan service outperformed in-person care on several quality measures while its parent company went bankrupt. IBM's Watson for Oncology met a partial clinical misfit in India while remaining well funded until it was sold. Narayana Health's Cayman Islands hospital shows a third response: relocating to a jurisdiction that is neither origin nor main market. The paper sets this decomposition against institutional distance, implementation frameworks, venture-finance research and international new-venture theory, states four propositions and a survival model for future testing, and presents its contribution as a proposed analytical decomposition rather than a confirmed theory.*

Keywords: *Capital-Formation Fit, Delivery-System Fit, Cross-Border Health Technology, Institutional Distance, Venture Financing, Reverse Innovation, Jurisdictional Arbitrage, Health-System Adoption.*

I. INTRODUCTION

A familiar sentence in health-technology commentary says that clinical evidence is necessary but not sufficient. A treatment, a device or a care model can work in trials and still fail once it leaves the country where it was built, because the payers, regulators, guidelines and staffing rules of the new setting decide whether it is used. The sentence is true, and it is no longer new. Two research traditions have already made it central. International-business scholars explain foreign failure through institutional voids and institutional distance (Khanna & Palepu, 1997; Kostova, 1999; Xu & Shenkar, 2002). Health-services researchers explain it through adoption and implementation frameworks, and through the literature on reverse innovation from lower-income to higher-income health systems (Damschroder et al., 2009; Greenhalgh et al., 2017; DePasse & Lee, 2013). A paper that only repeated that institutions matter would add nothing.

This paper starts from a narrower puzzle. Some ventures do everything their destination health system asks of them and still die. Others meet visible resistance from clinicians at their destination and still survive for years, then exit quietly. A third group sidesteps the destination problem altogether by moving operations to a place that belongs to neither the founder's home nor the patient's. If institutional fit were a single property of a venture in a single market, the first two patterns would look like noise and the third would have no name.

The question is therefore whether institutional fit is one thing or several. The answer proposed here is that it splits into at least two layers, each scored against different institutions. Delivery-system fit concerns the health system where care is given. Capital-formation fit concerns the institutions that pay for the venture to exist, whose location, time horizon and expectations can differ from those of the health system. The two layers are linked, but they are not the same, and they can point in opposite directions for the same venture at the same moment.

The contribution is deliberately modest. Nothing here claims to discover that financing matters to start-ups, which venture-finance research has shown for decades (Sahlman, 1990; Lerner & Nanda, 2020), or that institutions matter to cross-border transfer. The claim is that separating these two layers, and stating which institutional geography each is measured against, removes classification problems that appear when either literature is applied alone. That makes the contribution a proposed

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analytical decomposition of an existing variable. It becomes a stronger theoretical claim only if the propositions in Section (IV) survive testing on a larger sample.

The paper proceeds as follows. Section (II) reviews five bodies of work and explains, for each, what it holds fixed that the decomposition lets vary. Section (III) states the objectives. Section (IV) defines the two layers, states four propositions, gives a model for future estimation and describes how the cases were chosen. Section (V) applies the framework to four documented cases. Sections (VI) to (IX) discuss rival explanations, conclude, set out limitations and offer recommendations.

II. LITERATURE REVIEW

Five bodies of work bear on the question. Each is summarised below, followed by a statement of what it holds fixed. The aim is to locate the decomposition precisely: to show where each tradition already captures part of it, and where it does not.

A) Institutional Voids, Institutional Distance and the Liability of Foreignness

Khanna and Palepu (1997) introduced institutional voids to describe the missing intermediaries, weak contract enforcement and thin capital and labour markets that firms from developed economies take for granted at home. Their later work turned this into a strategic choice: a firm entering such a market can avoid, fill, work around or exploit each void (Khanna, Palepu & Bullock, 2010). Mair and Marti (2009) showed that voids are also places where new organisations are built, not only obstacles to existing ones.

A second line measures how different two countries are. Kostova (1999) modelled the transfer of organisational practices from a parent firm to a foreign unit and argued that transfer succeeds when the practice becomes institutionalised in the recipient context. Xu and Shenkar (2002) defined institutional distance between home and host countries along regulative, normative and cognitive dimensions and linked it to where and how multinationals enter. Zaheer (1995) gave the costs of operating abroad a name, the liability of foreignness, and found that foreign trading rooms in New York and Tokyo did suffer it. Ghemawat (2001) broadened distance into cultural, administrative, geographic and economic components.

What these accounts hold fixed is the location of capital. In each, the firm that crosses the border is assumed to fund the move from its own resources, so the only institutional relationship that varies is the one between home and host. Distance is measured as a gap between two countries. The decomposition proposed here adds a third location, the financier's, and asks whether the venture fits it. A young health-technology company headquartered in London, financed by investors in New York and delivering care in Kigali faces three institutional settings, and its home-host distance says nothing about the second of them.

B) Adoption, Implementation and Scale-Up in Health Care

Rogers (2003) treated adoption as a process shaped by an innovation's relative advantage, compatibility, complexity, trialability and observability. Implementation science made the setting explicit. The Consolidated Framework for Implementation Research (CFIR) groups influences into five domains: the intervention, the outer setting, the inner setting, the individuals involved and the implementation process; its outer setting includes patient needs, links to other organisations, peer pressure and external policies and incentives (Damschroder et al., 2009).

The NASSS framework of Greenhalgh and colleagues (2017) comes closest to the present argument. It explains non-adoption, abandonment and failures to scale, spread and sustain technologies across seven domains: the condition, the technology, the value proposition, the adopter system, the organisation, the wider institutional and societal context and their interaction over time. Its value-proposition domain separates demand-side value, whether the technology is safe, effective and affordable for patients and services, from supply-side value, the developer's business case and the risk it poses to investors. NASSS therefore already contains the seed of capital-formation fit.

The difference is one of unit and location. NASSS is applied to a technology in a particular adopting setting, so a company operating in three countries would be analysed three times, each with its own value-proposition domain. The decomposition treats capital fit as a single property of the venture that is carried into every destination at once. That has an observable consequence NASSS does not predict: when capital fit fails, the venture should fail in all of its destinations together, including those where its delivery fit was strong. Babylon Health's simultaneous exit from several health systems in 2023 (Section (V).C) is the pattern this distinction is designed to capture.

Research on digital-health scale-up in low- and middle-income countries points the same way from another angle. Huang, Blaschke and Lucas (2017) described "pilotitis": interventions that are adopted locally but never gain the acceptance needed to become part of national health systems. Labrique and colleagues (2018) listed five requirements for scale, one of which is sustainable funding that supports long-term growth, including private funding where appropriate. Both works treat funding as a feature of the adopting system or its donors. Neither asks whether the developer's own investors can wait for the adopting system to move.

C) Financing Innovation and the Time Horizon of Capital

Venture-finance research explains why the timing of capital matters. Sahlman (1990) described venture funds as limited-life partnerships that invest in stages, which ties each investment to a horizon and to milestones that must be reached before the next round. Lerner and Nanda (2020) argued that institutional venture capital funds only a narrow band of technological innovation and that a small number of investors shape much of the direction of radical technological change. Ewens, Nanda and Rhodes-Kropf (2018) found that as the cost of starting businesses fell, investors moved toward funding many small experiments with little oversight, which favoured ventures whose prospects are revealed quickly and cheaply over complex technologies whose early experiments cost more and reveal less.

This work holds the product market constant. It explains which ventures investors prefer, but not how the speed of a particular health system interacts with the patience of a particular investor. Health systems adopt slowly and unevenly. Health technology assessment, procurement cycles, guideline revision and professional acceptance each take time, and that time differs by country. Capital-formation fit, as defined here, is the match between that destination-specific adoption tempo and the financier's required time to scale. This is also where the two layers touch. The decomposition does not claim they are independent, only that they are measured against different institutions and can diverge.

D) Cross-Border Scaling, Institutional Escape and Third-Country Platforms

International business research on young firms explains how ventures can cross borders without the resources of a multinational. Oviatt and McDougall (1994) defined international new ventures as organisations that are international from inception and identified four conditions for their existence, including reliance on alternative governance structures to reach resources. Luo and Tung (2007) proposed a springboard perspective in which firms from emerging economies expand abroad to acquire critical resources and reduce their vulnerability to constraints at home.

Two further ideas are closer to the fourth proposition of this paper. Witt and Lewin (2007) argued that outward foreign investment can be an escape response to home-country institutions that no longer fit a firm's needs. Ekholm, Forslid and Markusen (2007) modelled export-platform foreign investment, in which an affiliate's output is sold mainly in third markets rather than in the parent's or the host's.

Neither idea fully describes a health-care venture that settles in a third jurisdiction. Escape theory looks backward, at what the firm leaves. Export-platform theory looks at production cost and trade cost. In health services, the buyer often travels to the seller, and what the venture needs from its platform is not cheap assembly but standards that the buyer's home system will recognise, together with freedom from that home system's payment and liability rules. This paper calls that move jurisdictional arbitrage and treats it as a strategic option to be explained, not as an outcome to be filed under success or failure.

E) Reverse Innovation, Frugal Models and Business Models in Health

A large health-specific literature documents care models that originate in lower-income systems and move toward wealthier ones. Christensen, Bohmer and Kenagy (2000) argued that simpler, cheaper innovations could disrupt expensive health systems. DePasse and Lee (2013) combined the business idea of reverse innovation with diffusion theory into a staged model. Bhatti and colleagues (2017) drew lessons for the United States from frugal innovations abroad, including a hospital model that began in India and was replicated in the Cayman Islands. Govindarajan and Ramamurti (2018) traced how United States providers could learn from Indian value-based delivery. Brady and Saranga (2013) compared innovative health-care business models in India and Ireland.

Business-model research supplies a vocabulary for the venture side. Teece (2010) defined a business model as the design by which a firm creates and delivers value to customers and converts payment into profit. A systematic review by Fredriksson and colleagues (2017) found that business-model frameworks in health care are used to describe, assess, classify, analyse, develop and evaluate organisations, mostly from the inside.

This literature holds the direction of travel and the financing of the venture largely fixed. Its central cases move from India to richer systems and are funded by operating surpluses or patient capital. It has less to say about ventures financed by fast-moving foreign capital, or about technologies that move from rich systems to poorer ones and meet resistance there.

F) What the Decomposition Adds

Read together, the five traditions already establish most of the pieces. Institutions in the destination matter. The developer's business case matters, at least in NASSS. The patience of investors matters in venture finance. Young firms can be international from birth, and firms can escape their home institutions.

Three points are not yet joined. First, no tradition reviewed here scores the same venture against two different institutional settings, the delivery setting and the financing setting, at the same time. Second, none treats capital fit as a property shared across

all of a venture's destinations, which predicts correlated failure across markets with different delivery fit. Third, none classifies relocation to a third jurisdiction as a distinct response to misfit in health care. The decomposition in Section (IV) is built to make these three points testable. It is offered as a reorganisation of known ideas, not a replacement for any of them.

III. OBJECTIVES

The study has three objectives.

- To define delivery-system fit and capital-formation fit precisely enough that each can be scored separately for the same venture, and to state against which institutions each is scored.
- To test, on a small set of documented cases, whether a single-layer view of institutional fit misclassifies outcomes that the two-layer view classifies correctly.
- To state the resulting claims as propositions and a statistical model that a larger study could test or reject.

These objectives translate into three research questions. Can the two layers diverge for the same venture? When they diverge, does the pattern of outcomes differ in the way the propositions predict? And is relocation to a third jurisdiction better described as a separate strategic response than as a form of adaptation or failure?

IV. RESEARCH METHOD

A) The Two Layers Defined

- Delivery-system fit (D) is the degree to which a technology or care model is compatible with the destination health system's clinical guidelines, regulatory approvals, payment and procurement rules, workforce scope of practice and existing workflows. It is a property of a venture in a particular destination. The same venture can have high delivery fit in one country and low fit in another.
- Capital-formation fit (C) is the degree to which the venture's cost structure and required time to scale match the return horizon, risk tolerance and growth expectations of the institutions that finance it. Those institutions may sit in the destination, in the venture's home country or in a third country. Capital fit is a property of the financing entity, so a venture that serves several destinations from one balance sheet carries one capital-fit score into all of them.
- The layers are linked through time. A destination's adoption tempo, how fast its regulators, payers and clinicians allow us to grow, sets how quickly revenue can rise. The financier's horizon sets how long that rise can take. Capital fit is therefore partly a relation between a financier and the destinations it is betting on. This is why the layers are described as partly independent rather than orthogonal.

B) Propositions

The four propositions are directional hypotheses. The cases in Section (V) illustrate them; they do not test them statistically.

- Proposition 1 (high D, high C). Ventures aligned on both layers should show durable operation and a higher chance of successful replication.
- Proposition 2 (high D, low C). Ventures with strong delivery fit but misaligned financing should show a break between performance at the point of care and survival of the organisation. Because capital fit is shared across destinations, failure should arrive in several destinations at about the same time, regardless of how well each was performing.
- Proposition 3 (low or mixed D, high C). Well-funded ventures with weak delivery fit should persist longer than their clinical reception alone would predict and should end, if they end, through negotiated retrenchment or sale rather than abrupt collapse.
- Proposition 4 (jurisdictional arbitrage). When neither the origin nor the main market offers acceptable fit on both layers, a venture may relocate to a third jurisdiction chosen because its standards are recognised by the target patients' home system while its payment and liability rules are not those of that system.

C) A Model for Future Estimation

The propositions can be written as a model for a future study with enough cases to estimate it. No such data set exists yet, so the model is not estimated here. For each venture i, let DFI be a delivery-fit index and CFI a capital-fit index, each scaled from 0 to 1. A probit model of survival to year t would be:

$$Pr(Survive_{i,t} = 1) = \Phi(\beta_0 + \beta_1 \cdot DFI_i + \beta_2 \cdot CFI_i + \beta_3 \cdot (DFI_i \times CFI_i) + \gamma' X_i)$$

Here Φ is the standard normal cumulative distribution function, and X is a set of controls such as founding year, sector and total capital raised. The framework predicts that β_2 is positive for survival and that β_3 is positive, meaning the two kinds of fit reinforce each other. It also predicts a different weighting for a second outcome. When the outcome is clinical or operational performance at the destination, delivery fit should carry most of the weight and capital fit little. Running both models on the same sample is the cleanest test of the decomposition: if the two layers matter for different outcomes, the coefficients should switch in relative size between the two models.

A candidate operational definition for each index follows.

- DFI could combine binary or ordinal sub-scores for regulatory approval in the destination, inclusion in a payment or procurement route, alignment with national guidelines, and whether the workforce needed exists under local scope-of-practice rules. Each sub-score can be coded from public documents.
- CFI could be built from the ratio of the venture's cash runway to its time to break-even under the destination's observed adoption tempo, together with the stated horizon of its main investors. Listed ventures disclose much of this; private ones disclose less, which is a known limit of the design.

Because capital fit is shared across a venture's destinations, a future data set should treat venture-destination pairs as the unit of observation and cluster standard errors by financing entities.

D) Case Selection and Evidence

The study uses structured comparison of documented cases drawn from secondary evidence: peer-reviewed evaluations, regulatory and company disclosures, institutional case studies and contemporaneous reporting. Cases were chosen on three explicit criteria, not because they fit the argument:

- Enough public evidence must exist to score delivery fit and capital fit separately;
- The case must involve the united states, the united kingdom or india as origin, financier location or destination;
- The set must cover more than one combination of the two layers, so that the framework is tested on its ability to separate cases, not merely to tell one story.

Four cases met these criteria. Aravind Eye Care System and Narayana Health in India serve as the baseline. Babylon Health and its Rwandan service, Babyl, is the case where the layers diverge in one direction. IBM's Watson for Oncology at Manipal Hospitals in Bengaluru is the case where they diverge in the other. Narayana Health's Health City Cayman Islands is the boundary case for Proposition 4. Each case was coded on both layers as high, mixed or low, using only the evidence cited in Section (V).

V. FINDINGS

A) Institutional Settings

Table 1 summarises the institutional features that the cases engage. It is an orientation aid, not a ranking of health systems, and it lists only features that bear on one of the two layers.

Table 1: Institutional Features Relevant to Delivery Fit and Capital Fit in the United States, The United Kingdom and India

Institutional layer	United States	United Kingdom	India
Payer structure	Many private payers plus Medicare and Medicaid; contracts negotiated payer by payer	One dominant public payer, the NHS, with centralised commissioning	Mixed public and private; high out-of-pocket spending; growing public insurance
Technology assessment	No single national body; coverage decided payer by payer	Central assessment by NICE for England	No binding national assessment; purchasing split across states and hospital chains
Capital for health ventures	Deep venture and public-equity markets that reward fast growth	Smaller domestic venture market; scale-ups often raise abroad	Growing domestic venture market with substantial foreign capital
Workforce and task allocation	Scope-of-practice rules vary by state	General-practitioner gatekeeping; task-shifting to other clinicians common	Wide task-shifting to non-physician staff because of specialist shortages

The table makes one structural point. The country that supplies the most growth capital, the United States, is also the one where a venture's adoption tempo is set by the most separate payers. A venture financed on United States growth expectations but delivering care elsewhere imports the first feature without the second.

B) Case A: Aravind and Narayana in India, the Baseline

Aravind Eye Care System was founded in Madurai in 1976. Its model lets paying patients subsidise free or low-cost cataract surgery for the majority, while standardised workflows allow very high surgical volumes. In 2017 Aravind performed about 280,000 cataract surgeries in a year, roughly a third of them on patients from free eye camps (GiveWell, 2017). Its training arm, the Lions Aravind Institute of Community Ophthalmology, had shared its methods with about 350 hospitals in India and 28 other countries by 2018 (CASI, 2019). Narayana Health applied a comparable high-volume, cross-subsidised logic to cardiac surgery (Khanna, Rangan & Manocaran, 2005).

Both layers are high here, and they reinforce each other. The cross-subsidy is at once a way to reach patients and a way to finance growth on a timeline that philanthropic and operating capital can tolerate. This case supports Proposition 1, but it is used as a baseline rather than as new evidence, because these organisations are among the most documented in health-management teaching.

C) Case B: Babylon Health and Babyl Rwanda, Strong Delivery Fit, Weak Capital Fit

Babylon Health was founded in the United Kingdom and combined symptom-checking software with remote consultations. Its Rwandan service, Babyl, signed a ten-year partnership with the Government of Rwanda in March 2020 to offer digital care nationwide. Members of the community-based health insurance scheme could use it and pay co-payments by mobile money; it then had about 2 million registered users (Rwanda Development Board, 2020). By August 2023, it reported 2.4 million registered users and more than 3.5 million consultations since 2018 (The East African, 2023).

The best evidence on its delivery fit is a standardized-patient study in which trained actors presented scripted cases of malaria and upper respiratory infection to clinicians, comparing Babyl's phone consultations with in-person visits across 2,532 encounters (Wellsjo et al., 2025). Telemedicine ordered about 70% fewer unnecessary laboratory tests and prescribed fewer unnecessary drugs, about 15% fewer for malaria and 40% fewer for respiratory infection. Respiratory cases were roughly three times as likely to be managed correctly by phone, while malaria showed no significant difference. When actors asked for an unnecessary antibiotic, in-person clinicians were more likely to give one; phone clinicians were not. Consultations were also shorter and cheaper for patients. On the measures available, delivery fit in Rwanda was high.

Capital fit was low, and the weakness sat with the parent company and its investors. Babylon went public in October 2021 through a merger with a special-purpose acquisition company that valued it at about US$4.2 billion (Fierce Healthcare, 2023). It reported a net loss of US$221.4 million on US$1.1 billion of revenue for 2022 (The East African, 2023). In 2023, an insurer said its affiliated plans would not renew contracts that the company said made up nearly half of its 2022 revenue, a planned take-private deal collapsed, and two United States subsidiaries filed for Chapter 7 liquidation on 9 August 2023 (Healthcare Dive, 2023). The United Kingdom holding companies entered administration later that month and most of their assets were sold (Fierce Healthcare, 2023). In September 2023, Babyl Rwanda was reported to have ceased operations (The New Times, 2023).

Two features of this case matter for the framework. First, delivery performance and organisational survival came apart: the evidence of good care in Rwanda did nothing to keep the service open. Second, the failure reached every destination within about two months, including the one with the strongest delivery evidence. That is the correlated failure Proposition 2 predicts when capital fit is shared.

The case also contains a caution. Delivery fit was not uniformly high across Babylon's markets. Researchers questioned the evidence behind its symptom-checker claims (Fraser, Coiera & Wong, 2018), and an independent evaluation of its NHS service in London found that the model suited patients with relatively low needs and asked whether the national funding formula was appropriate for it (Digital Health, 2019). This supports treating delivery fit as a property of each destination, not of the company.

D) Case C: Watson for Oncology at Manipal, Mixed Delivery Fit, Strong Capital Fit

IBM's Watson for Oncology was used at Manipal Comprehensive Cancer Center in Bengaluru. A study of 638 breast-cancer cases treated there between 2014 and 2016 found that Watson's recommendations agreed with those of the hospital's multidisciplinary tumour board in 93% of cases, with lower agreement for stage I and stage IV disease (Somashekhar et al., 2018). In 2018, internal IBM documents reported by STAT described "multiple examples of unsafe and incorrect treatment recommendations" and attributed the problem to training on a small number of hypothetical cases prepared with specialists at one United States cancer centre (Ross & Swetlitz, 2018).

Delivery fit is therefore coded as mixed, not low. Agreement at Manipal was high overall, but the system's knowledge came from the practice of a few specialists in one high-income setting, which is exactly the kind of origin-bound assumption that limits transfer to systems with different drugs, costs and guidelines.

Capital fit was strong. IBM spent roughly US$4 billion on acquisitions to build Watson Health, and the unit was not profitable. In January 2022, IBM agreed to sell Watson Health's data and analytics assets to the private-equity firm Francisco Partners, in a deal reported to be worth more than US$1 billion (BNN Bloomberg, 2022). The ending was a negotiated sale, years after the first doubts, not a sudden collapse. That is the pattern Proposition 3 predicts: deep capital extended the life of a venture whose delivery fit was contested, and shaped how it ended.

E) Case D: Health City Cayman Islands, Jurisdictional Arbitrage

In 2012, Narayana Health, the United States nonprofit system Ascension and the Cayman Islands government formed a partnership to build a hospital on Grand Cayman. Health City Cayman Islands opened in 2014, staffed initially by a team from Narayana's Bengaluru hospital, with plans to seek Joint Commission International accreditation so that it could attract patients from the United States (Cayman Compass, 2014). It became a 104-bed, accredited hospital that began with cardiac and orthopedic surgery and later added other services. In November 2017, Ascension announced that ownership would pass entirely to Narayana Health (Ascension, 2017). Duke University's Innovations in Healthcare program documented it as an attempt to move a low-cost, high-quality hospital model into a new setting (Taylor, Escobar & Udayakumar, 2015), and Bhatti and colleagues (2017) cited it as an Indian model replicated outside India.

The venture did not adapt Narayana's model to the United States mainland, with its payer contracting and liability rules, and it did not simply serve patients from India. It chose a third jurisdiction whose accreditation United States patients and insurers could recognise, while operating under Cayman rules. Delivery fit in the ordinary sense was avoided rather than achieved, and capital fit was supplied first by a joint venture with a large United States health system and later by the Indian parent. Under a single-layer view, this case is neither adaptation nor failure. Under the decomposition, it is a deliberate choice of the delivery setting, made because neither the origin nor the main market offered acceptable fit.

F) Cross-Case Synthesis

The four cases can now be read side by side. In the baseline case, Aravind and Narayana in India, both layers are high and reinforce each other, and the outcome, decades of operation and wide replication, is what any version of institutional-fit theory would predict. The baseline adds no new evidence, but it shows that the framework reproduces the standard result where the standard result holds. In the Babylon case, delivery fit in Rwanda was high on the strongest evidence available, a controlled comparison with in-person care, while capital fit was low because the parent was financed on growth expectations its revenue could not meet. A single-layer model has to call this either a fit or a misfit and is wrong either way: the care worked, and the organisation died. The two-layer model predicts both observations, and it also predicts their timing, since the shared financing failure ended operations in the United States, the United Kingdom and Rwanda within weeks of one another.

In the Watson case, the asymmetry runs the other way. Delivery fit was mixed, with high agreement at Manipal alongside documented concerns about how the system's recommendations were formed, while capital fit was strong. The venture lasted for years and ended through a sale rather than a collapse. A single-layer model would expect misfit to produce failure and cannot explain the long survival or the orderly exit; the two-layer model attributes the first to delivery fit and the second to capital fit. In the Cayman case, the venture neither adapted to its main market nor failed in it. It changed the delivery setting. Capital came first from a United States partner and then from the Indian parent. The outcome, a hospital that has operated since 2014 under sole Narayana ownership since 2017, falls outside the adapt-or-fail choice that both literatures assume.

The overall claim is limited to what four cases can support. A single-layer view misclassifies two of the four cases and has no category for a third. That does not show the two-layer view is correct or complete. It shows that, on independently documented evidence, the decomposition separates cases that the single variable runs together. Figure 1 places the four cases on the two layers.

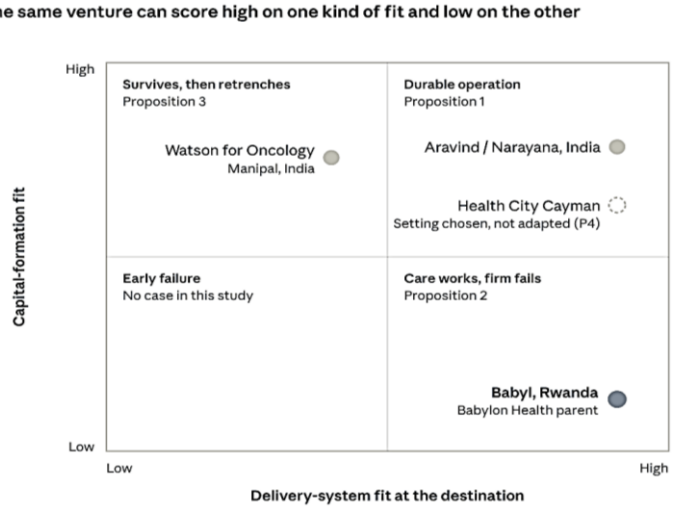


Figure 1. Venture Performance Matrix Based on Capital-Formation Fit and Destination Delivery-System Fit

Figure 1. The four cases placed on the two layers of institutional fit. Positions are qualitative. The dashed marker shows that Health City Cayman did not adapt to a destination but chose one.

Qualitative positions from the case coding in Section (V), not measured index values

VI. DISCUSSION ANALYSIS

A) Rival Explanations

Any claim built on four cases has to be checked against simpler stories that could explain the same facts. Five are considered here.

The first is that Babylon failed because its technology was weak, not because of its financing. There is evidence that its symptom-checker claims were overstated (Fraser, Coiera & Wong, 2018). But the Rwandan evidence concerns clinicians working by phone, not the algorithm alone, and it found care that was at least as good as in-person care. If weak technology were the main cause, the service with the best measured performance should have been the last to close, not one of the first. The financing explanation fits the timing better, though it need not be the only cause.

The second is that Watson's exit was ordinary corporate portfolio management, unrelated to delivery fit. That is partly true and is consistent with the framework. Proposition 3 does not say delivery misfit caused the sale; it says that deep capital determines how a venture with contested delivery fit ends. A firm with IBM's resources can wait, reorganise and sell. A start-up with the same clinical reception and less capital could not have.

The third is that the cases were chosen to fit the argument. Selection was made on stated criteria, and the criteria required variation across the two layers. Still, documented cases are documented because they are large or dramatic. Quiet failures and quiet successes are under-represented, and the propositions should be tested on a sampling frame that does not depend on press coverage.

The fourth is that the decomposition is simply the familiar split between product risk and financing risk. At the level of a single firm, it largely is. The contribution is narrower: applying that split to cross-border health care shows that the two risks are scored against different countries' institutions, and that one of them is shared across all of a venture's destinations. Neither point follows from the general distinction alone.

The fifth is that Health City Cayman is just medical tourism. It is medical tourism, but that label describes what patients do, not why the provider chose the location. The choice of a jurisdiction whose accreditation United States patients recognise, while staying outside United States payment and liability rules, is the strategic decision Proposition 4 describes. Medical tourism is the market in which that decision was made.

B) What The Decomposition Adds, and What it does Not

The decomposition changes three things about how a cross-border health venture is analysed.

It changes the unit of analysis. Delivery fit is scored for each venture-destination pair, and capital fit for each financing entity. Existing frameworks score a technology in a setting, which makes it hard to see that one weakness can sink many settings at once.

It changes the timing question. Capital fit is defined against the destination's adoption tempo. A venture can fit a health system clinically and still misfit it financially, because the system adopts at the pace of its assessment bodies, procurement cycles and guideline committees, while the venture's investors expect growth at the pace of software markets. Ewens, Nanda and Rhodes-Kropf (2018) found that venture investors have shifted toward ventures whose prospects are revealed quickly and cheaply. Health systems are among the slowest places to reveal anything, which suggests that the tempo mismatch may be structural rather than accidental.

It adds an option. Ventures facing misfit are usually described as adapting or failing. Relocation to a third jurisdiction is a third option, and it may be more available in health care than in other industries because patients and their insurers can travel to care in ways that many buyers of physical goods do not need to. It does not establish that two layers are enough. Data governance, for example, could be a third layer: a technology may fit the clinical system and its financiers and still fail on rules about where patient data may be stored. Nor does it establish the relative weight of the layers. That is what the model in Section (IV).C is for.

C) Implications

For investors, Proposition 2 means that clinical and operational due diligence on a cross-border health venture is necessary but not sufficient. A venture can pass every test in its destination and still fail because its financing needs a growth rate that its

care model cannot produce. The question to ask is not only whether the product works where it is sold, but whether the investors' horizon is longer than the destination's adoption tempo.

For governments that contract with foreign health-technology firms, the Rwandan case shows a specific dependency. A national service that works well can disappear because of events in another country's capital markets. Contracts can reduce this exposure by securing continuity arrangements, data portability and the transfer of local staff and systems if the parent fails. For the reverse-innovation literature, the Watson case is a useful complication. Innovation flowing in the conventional direction, from a rich system to a poorer one, met a fit problem of the same shape as those documented in the opposite direction. That suggests the mechanism does not depend on which way the innovation travels.

VII. CONCLUSION

The literature on cross-border health technology has already shown, in general form, that institutional fit with a destination matters. This paper's contribution is narrower than that discovery. It proposes that institutional fit has at least two layers. Delivery-system fit is scored against the health system where care is given. Capital-formation fit is scored against the institutions that finance the venture, and is shared across every destination the venture serves.

Four documented cases show that the layers can move apart. A service in Rwanda performed well against in-person care and closed within weeks of its parent's bankruptcy. A well-funded decision tool met mixed clinical reception in India and ended years later through an orderly sale. A hospital group avoided the adaptation problem entirely by building in a third jurisdiction. A single-layer view of fit misclassifies the first two and has no category for the third.

These are propositions, not settled findings. The framework is offered as an analytical decomposition and a model for future testing, in the hope that a larger, systematically sampled study can confirm, refine or reject it.

VIII. LIMITATIONS

The analysis has five main limitations.

- Small, purposive sample. Four cases were chosen for the richness of their documentation and their spread across the framework, not at random. They can illustrate the propositions but cannot test them.
- Secondary evidence only. All evidence is published, and several facts come from news reporting and company statements rather than audited or peer-reviewed sources. This limits how far contested causal claims, such as the relative weight of technology, governance and financing in Babylon's collapse, can be settled.
- Qualitative coding. Each case was coded high, mixed or low on each layer by a single author. A future study should use explicit coding rules and more than one coder, and report agreement between them.
- Possible missing layers. Two layers may not be enough. Data governance and political risk are plausible candidates for a third.
- Survivorship in the evidence base. Large and dramatic cases are better documented than small ones. Ventures that failed quietly, for reasons the framework would also predict, are by construction harder to find.

IX. RECOMMENDATIONS

- For researchers. Build a sample of cross-border health-technology ventures from a sampling frame that does not depend on press coverage, such as company registries or venture databases, and code each venture-destination pair on delivery fit and each financing entity on capital fit. Estimate the survival model in Section (IV.C) alongside a model of clinical or operational performance, and test whether the weight of the two layers switches between the two outcomes.
- For investors. Add an explicit tempo check to due diligence: compare the investors' expected time to scale with the observed time that the destination's regulators, payers and clinicians take to adopt comparable technologies.
- For governments and health systems. When contracting with foreign technology firms for national services, write continuity, data-portability and staff-transfer terms into the contract, so that a failure in the supplier's capital markets does not end a service that is working.
- For founders. Treat the choice of financier as part of market entry. Capital whose horizon matches the slowest destination in the plan may be worth more than larger capital that expects the pace of the fastest.

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XI. REFERENCES

[1] Ascension. Health City Cayman Islands to transition to new ownership model. Ascension News, 8 November 2017. https://about.ascension.org/news/2017/11/health-city-cayman-islands-to-transition-to-new-ownership-model

[2] Bhatti, Y., Taylor, A., Harris, M., Wadge, H., Escobar, E., Prime, M., Patel, H., Carter, A. W., Parston, G., Darzi, A. W., & Udayakumar, K. Global lessons in frugal innovation to improve health care delivery in the United States. Health Affairs, 36(11) (2017) 1912–1919.

[3] BNN Bloomberg. IBM sells some Watson Health assets for more than $1 billion. 21 January 2022. https://www.bnnbloomberg.ca/ibm-sells-some-watson-health-assets-for-more-than-1-billion-1.1711145

[4] Brady, M. P., & Saranga, H. Innovative business models in healthcare: A comparison between India and Ireland. Strategic Change, 22(7–8) (2013) 339–353.

[5] Cayman Compass. Health City awaits patients. 27 February 2014. https://www.caymancompass.com/2014/02/27/health-city-awaits-patients/

[6] Center for the Advanced Study of India (CASI), University of Pennsylvania. High impact and low cost solutions in global health: Lessons from the award-winning Aravind model. Event page, 2019. https://casi.sas.upenn.edu/node/5094

[7] Christensen, C. M., Bohmer, R., & Kenagy, J. Will disruptive innovations cure health care? Harvard Business Review, 78(5) (2000) 102–112.

[8] Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. Implementation Science, 4 (2009) 50. https://doi.org/10.1186/1748-5908-4-50

[9] DePasse, J. W., & Lee, P. T. A model for "reverse innovation" in health care. Globalization and Health, 9 (2013) 40. https://doi.org/10.1186/1744-8603-9-40

[10] Digital Health. Funding model for GP at Hand "not appropriate," Ipsos Mori review finds. May 2019. https://www.digitalhealth.net/2019/05/gp-at-hand-funding-not-appropriate-ipsos-mori/

[11] Ekholm, K., Forslid, R., & Markusen, J. R. Export-platform foreign direct investment. Journal of the European Economic Association, 5(4) (2007) 776–795.

[12] Ewens, M., Nanda, R., & Rhodes-Kropf, M. Cost of experimentation and the evolution of venture capital. Journal of Financial Economics, 128(3) (2018) 422–442.

[13] Fierce Healthcare. Babylon closes US business, lays off employees after MindMaze take-private deal collapses. August 2023. https://www.fiercehealthcare.com/digital-health/babylon-closes-us-business-lays-employees-after-mindmaze-take-private-deal-collapses

[14] Fraser, H., Coiera, E., & Wong, D. Safety of patient-facing digital symptom checkers. The Lancet, 392(10161) (2018) 2263–2264. https://doi.org/10.1016/S0140-6736(18)32819-8

[15] Fredriksson, J. J., Mazzocato, P., Muhammed, R., & Savage, C. Business model framework applications in health care: A systematic review. Health Services Management Research, 30(4) (2017) 219–226.

[16] Ghemawat, P. Distance still matters: The hard reality of global expansion. Harvard Business Review, 79(8) (2001) 137–147.

[17] GiveWell. A conversation with Thulasiraj Ravilla, 19 May 2017. Conversation notes. https://files.givewell.org/files/conversations/Thulasiraj_Ravilla_05-19-17_(public).pdf

[18] Govindarajan, V., & Ramamurti, R. Reverse Innovation in Health Care: How to Make Value-Based Delivery Work. Harvard Business Review Press, Boston, MA (2018).

[19] Greenhalgh, T., Wherton, J., Papoutsi, C., Lynch, J., Hughes, G., A'Court, C., Hinder, S., Fahy, N., Procter, R., & Shaw, S. Beyond adoption: A new framework for theorizing and evaluating nonadoption, abandonment, and challenges to the scale-up, spread, and sustainability of health and care technologies. Journal of Medical Internet Research, 19(11) (2017) e367. https://doi.org/10.2196/jmir.8775

[20] Healthcare Dive. Babylon files for Chapter 7 bankruptcy. August 2023. https://www.healthcaredive.com/news/Babylon-Chapter-7-bankruptcy/691218/

[21] Huang, F., Blaschke, S., & Lucas, H. Beyond pilotitis: Taking digital health interventions to the national level in China and Uganda. Globalization and Health, 13 (2017) 49. https://doi.org/10.1186/s12992-017-0275-z

[22] Khanna, T., & Palepu, K. G. Why focused strategies may be wrong for emerging markets. Harvard Business Review, 75(4) (1997) 41–51.

[23] Khanna, T., Palepu, K. G., & Bullock, R. J. Winning in Emerging Markets: A Road Map for Strategy and Execution. Harvard Business Press, Boston, MA (2010).

[24] Khanna, T., Rangan, V. K., & Manocaran, M. Narayana Hrudayalaya Heart Hospital: Cardiac Care for the Poor (A). Harvard Business School case (2005).

[25] Kostova, T. Transnational transfer of strategic organizational practices: A contextual perspective. Academy of Management Review, 24 (1999) 308–324. https://doi.org/10.2307/259084

[26] Labrique, A. B., Wadhwani, C., Williams, K. A., Lamptey, P., Hesp, C., Luk, R., & Aerts, A. Best practices in scaling digital health in low and middle income countries. Globalization and Health, 14 (2018) 103. https://doi.org/10.1186/s12992-018-0424-z

[27] Lerner, J., & Nanda, R. Venture capital's role in financing innovation: What we know and how much we still need to learn. Journal of Economic Perspectives, 34(3) (2020) 237–261. https://doi.org/10.1257/jep.34.3.237

[28] Luo, Y., & Tung, R. L. International expansion of emerging market enterprises: A springboard perspective. Journal of International Business Studies, 38(4) (2007) 481–498.

[29] Mair, J., & Marti, I. Entrepreneurship in and around institutional voids: A case study from Bangladesh. Journal of Business Venturing, 24(5) (2009) 419–435.

[30] Oviatt, B. M., & McDougall, P. P. Toward a theory of international new ventures. Journal of International Business Studies, 25(1) (1994) 45–64.

[31] Rogers, E. M. Diffusion of Innovations, 5th ed. Free Press, New York (2003).

[32] Ross, C., & Swetlitz, I. IBM's Watson supercomputer recommended "unsafe and incorrect" cancer treatments, internal documents show. STAT News, 25 July 2018. https://www.statnews.com/2018/07/25/ibm-watson-recommended-unsafe-incorrect-treatments/

[33] Rwanda Development Board. Government of Rwanda, Babyl partner to provide digital healthcare to all Rwandans. 2 March 2020. https://rdb.rw/government-of-rwanda-babyl-partner-to-provide-digital-healthcare-to-all-rwandans/

[34] Sahlman, W. A. The structure and governance of venture-capital organizations. Journal of Financial Economics, 27(2) (1990) 473–521.

[35] Somashekhar, S. P., Sepúlveda, M.-J., Puglielli, S., Norden, A. D., Shortliffe, E. H., Rohit Kumar, C., Rauthan, A., Arun Kumar, N., Patil, P., Rhee, K., & Ramya, Y. Watson for Oncology and breast cancer treatment recommendations: Agreement with an expert multidisciplinary tumor board. Annals of Oncology, 29(2) (2018) 418–423.

[36] Taylor, A., Escobar, E., & Udayakumar, K. The Case of Narayana Health: Health City Cayman Islands. Innovations in Healthcare, Duke University, paper prepared for the Commonwealth Fund International Symposium on Health Care Policy (2015).

[37] Teece, D. J. Business models, business strategy and innovation. Long Range Planning, 43(2–3) (2010) 172–194.

[38] The East African. UK firm Babylon's woes impact Rwandan healthcare. 21 August 2023. https://www.theeastafrican.co.ke/tea/science-health/uk-firm-babylon-s-woes-impact-rwandan-healthcare-4340318

[39] The New Times. Babyl Rwanda reportedly ceases operations. 24 September 2023. https://www.newtimes.co.rw/article/11008/news/rwanda/babyl-rwanda-reportedly-ceases-operations

[40] Wellsjo, A. S., Gertler, P., Kwan, A., Remera, E., Irakiza, P., Condo, J., & Humuza, J. The medium matters: Medical decision-making in telemedicine versus in-person care. NBER Working Paper 34185 (2025). https://doi.org/10.3386/w34185
[41] Witt, M. A., & Lewin, A. Y. Outward foreign direct investment as escape response to home country institutional constraints. Journal of International Business Studies, 38(4) (2007) 579–594. https://doi.org/10.1057/palgrave.jibs.8400285
[42] Xu, D., & Shenkar, O. Institutional distance and the multinational enterprise. Academy of Management Review, 27(4) (2002) 608–618. https://doi.org/10.2307/4134406
[43] Zaheer, S. Overcoming the liability of foreignness. Academy of Management Journal, 38(2) (1995) 341–363. https://doi.org/10.5465/256683