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The Obsolescence of Business Capability Maps: Causes and Consequences for the Modern Enterprise

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Abstract

Business Capability Maps (BCMp) are basically charts that show what a company does. They have different levels like L1, L2, and L3, which just help people understand the company in a simple way. Business and IT teams use them, so everyone is talking about the same thing. But now companies are changing really fast because new technology keeps coming. So, if the map was made a long time ago and no one updates it, it slowly stops matching what is happening. It will not show if a capability improved or became weaker. After some time, the map becomes old and not very useful. This can lead to problems. Managers look at the old map and then make plans that are not right. Money is spent on the wrong things. Some unimportant projects are created, and important projects are missed. There could be redundant work and extra costs because of this inefficiency. In this paper, we are explaining why these old maps stop working and how that affects the company. We also think companies should update their maps regularly, and use better processes, tools, and technology to update the map.

Keywords: *Architecture Governance, Business Capability Map, Business Capability Obsolescence.*

Introduction

Business Capability Map, or BCMp, have been used for many years to show what a company does in a simple and organized way. These maps made it easier for people in business and IT to talk to each other and understand the company in the same way. They were also useful in planning projects and explaining business decisions. Because of this, they became very common in many organizations.

But the world has now changed a lot. Earlier, companies used to work in a slow environment where changes happened only once in a while.

For that time, a fixed map was okay. But today companies are changing almost all the time. Cloud, digital tools, automation, new rules, and changing customer needs all keep making companies change how they work. Capabilities change much faster, but maps do not.

This creates a big mismatch. A BCMp is mostly static. It shows what capabilities exist, but it does not show how strong they are, how weak they are now compared to last year. When companies get new technology or change the processes, the capabilities can change. But the map is rarely updated and does not show any of these changes. After a few months, the old map and the actual situation of company do not match, and the gap increases year after year.

This is not because people are lazy or not maintaining the map. The problem is in the way BCMp is designed. There is no simple way to show improvement, or to update. Because it does not clearly say who update which capability across people, processes, or

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technology. Most maps are made during one-time projects, shared in a nice slide deck, and then saved somewhere and forgotten. In today's fast-changing world, such a fixed map becomes outdated very fast.

When the map becomes old, many problems can appear. Leaders may make decisions based on old information. Transformation plans may focus on areas that are not important anymore, and real problems get lost. Money may get spent in unimportant places because the map does not show correct information. Teams may not know which capabilities need improvement. Architects cannot find technical gaps. Portfolio teams struggle to choose which projects to mark as important. Slowly, the company starts to do random work, with extra costs, confusion, and that creates risks.

Even with all these issues, BCMp is still used everywhere because there is no other option yet. Most research talks about how to document capabilities, but not how to update them in a fast-changing world. Some maturity models also exist, but they do not work without lot of manual work. So, companies do have good-looking maps but not good capability data.

This paper says that the problem with BCMp is not about updating it often. The real issue is the static design. The paper explains why BCMp becomes outdated, such as no way to show current state, no ownership, and no method to make updates. It also discusses how using outdated maps affects decision-making.

In the end, the paper says that companies need a better way to manage capabilities. They need clear ownership, regular checks on capabilities, and better use of data to understand how strong each capability is. As companies continuously change, their capability must update. A fixed map cannot support a company that is changing with time and moving forward.

Literature Review

Evolution of Business Capability Mapping

Business Capability Maps (BCMp) were mainly created to show what a company does in a clean and organized way. They break big activities into smaller levels like L1, L2, and L3. Many researchers said this helps the business and IT teams understand each other better. For example, Khosroshahi and team explained how BCMp became a common tool because it made big companies easier to understand [1]. Offerman and others also showed that capability levels help during planning and long-term transformations [2].

Ulrich and Rosen even called the capability map the "Rosetta Stone" because it helps connect business goals with IT work in a simple way [4]. Rosen also mentioned the same idea in another paper [5].

Capability Modelling in Enterprise Architecture Practice

Soon, BCMp went into larger enterprise architecture (EA) discussions. Kotusev and Alwadain studied how different companies model capabilities and found that everyone does it a little differently, with different levels of detail [3]. Rosenau wrote that capabilities are becoming more important as companies deal with digital changes and fast-moving environments [6].

Some researchers also tried to make capability definitions clear. Hafner and team suggested a detailed way to define capabilities so that people do not get confused about what each capability covers [7]. Deng added that capability maps can be combined with business architecture to make EA models stronger and connected [8].

Capability Maturity and Measurement Frameworks

Researchers also wrote a lot about capability maturity. Vayyavur said that it is not enough to only define a capability, companies should also measure how well the capability performs in real [9].

Kotusev said that many EA documents, including capability maps, are useful for communication but do not help much in day-to-

day operations if they are not updated [10].

Studies also agreed that capability maturity is important for digital transformation. Bican and Brem talked about how improving capabilities over time helps companies move through digital transformation better [11]. Prause linked digital capabilities directly with enterprise architecture maturity and overall company efficiency [12]. Chakravarty suggested that capability development should be checked regularly, not once in a while [13].

Lee and Lee found that using maturity models improves governance when capability assessments are regularly done [14]. Ibrahim and Ali showed that digital capability maturity has a effect on how ready a company is for transformation [15].

Limitations in Current Capability Practices

Even with all this research, many gaps still exist. Saunila said that companies do not use capability assessments properly because the results do not tell what to improve or how to improve the business model [16].

Al-Matari said that IT capability measurement is still disconnected and does not connect across different parts of the company [17]. Soares and Amaral mentioned a similar issue, where maturity checks happen irregularly and capabilities are not updated [18].

Magoulas and Pessi said that methods for updating capabilities in changing environments are developing and are not very standard [19]. Reis and team, after doing many digital capability studies, concluded that there is still no strong maturity model that works well for big organizations [20].

Goh and Payne said that many maturity checks are from subjective data, which makes the results poor [21]. Sochor and Gulanová said that companies need to improve capabilities with time because market conditions change quickly, but most capability still stay too static and don’t see updates [22].

Research Gap

The literature shows three main things:

1. BCMp is useful and widely accepted [1-6].
2. Capability needs regular updates, both addition and removal [7-9].
3. Capability maturity must be measured regularly [10-21].

But no study has created a single proposal that maps BCMp to continuous updates at the L3 level. Maturity models work separately, and BCMp stays as a static map. This missing link is the main gap, and this study focuses on solving exactly that problem.

Materials and Methods

This study uses a conceptual approach. The objective is to understand why Business Capability Maps (BCMp) become outdated soon and how we can fix this. Since we are thinking and debating ideas, our focus is on study, analysis, observing what is not working, and then putting a proposal on how to make things work.

Literature Synthesis

First, we read open-access papers related to business architecture, digital transformation, and capability modeling. These papers helped us see how capabilities go outdated, why static maps fail, and how maturity is used in other studies [1-22].

From this reading, we built the basic theory for the study and highlighted where current BCMp practices fall short.

Review of the Traditional BCMp

We took the traditional BCMp and broke it into its main parts. These included:

1. The hierarchy (L1, L2, L3),
2. Definitions,
3. Maturity details,
4. And no link to changes in data.

We compared each part with what the literature says and found how the BCMp is not updated as the real companies change over time.

Root-Cause and Impact

Then we looked for the main reasons why BCMp becomes outdated. Some common causes are missing responsibility, no maturity checks, no updates, and BCMp is not connected to change in company data.

We mapped these causes to the problems they create in planning, architecture, operations, and projects. This showed how an outdated map can create many issues for the enterprise.

New Framework Proposed

Using our findings, we created a framework that turns the static BCMp into a dynamic Business Capability Model (BCMd).

The framework includes:

1. Capability review criteria,
2. When to review capabilities,
3. People, process, and technology elements that help to update the model.

Conceptual Validation

We improved the framework through reviews, feedback, and checking it against approaches found in earlier research. We also shared the assumptions clearly so that others can understand how the framework was created.

Illustrative Case Application

To show how the framework works in real life, we made an example case using a typical L3 capability from a company value stream.

The example uses general data, so the focus is on how the method works, not on a specific type of company.

Illustrative Case Study: Applying the Framework in a Mid-sized Enterprise

To make it easier to understand, we created a case study for a mid-sized company going through digital transformation. The company had a BCMp, but it had not been updated for years. The map only showed capability names and levels, not how well each capability was performing. Because of this, leaders could not figure out which basic capabilities needed improvement.

Capability Selected for Assessment

The capability chosen was an L3 capability called Order Fulfillment Execution, which is part of the Order-to-Cash value stream.

This capability had many problems like late deliveries, and too much manual work. The BCMp simply listed the capability but gave no information on its performance.

Maturity Criteria Definition

The assessment used five simple criteria:

1. Process Standardization
2. Automation
3. Data Quality
4. Human Skills
5. Technology

Each was scored as “Met” or “Not Met.” Maturity levels were set like this:

1. 0–2 criteria met → Red
2. 3–4 criteria met → Yellow
3. 5 criteria met → Green

Assessment Results

The capability scored 3 out of 5, so it received a yellow rating.

Some observations were:

1. Processes were not the same everywhere; people did their own version.
2. Some automation existed, but most steps were still manual.
3. Inventory systems were not connected in real time.
4. Skill levels were different across teams
5. The old order-management system had many manual tasks that could not be automated.

Results

From the study, these important findings came out. They explain why the old Business Capability Maps (BCMp) stopped working overtime and why a dynamic model is needed today.

Key Reasons Why BCMp Becomes Outdated

The study showed that BCMp has problems built into its basic structure.

Some key issues were:

1. The map is static,
2. It does not show maturity,
3. It is not linked to operational data,
4. And there is no clear process for updating it regularly.

Because of these limits, the map cannot show how capability improves, becomes weaker, or change over time.

Capabilities Change Faster Than the Map

The literature shows that capabilities evolve all the time because of new technology, new processes, new rules, and changes in the workforce [1-2].

But BCMp usually stays the same for many years.

This creates a big mismatch. Even a good BCMp becomes out of date soon after it is created.

Enterprise Problems Caused by Outdated BCMp

When the map becomes old, decision-making across the company starts getting impacted.

Some of the issues include:

1. Strategy becomes poor
2. Transformation plans do not follow the right priority,
3. Money is spent in the wrong places,
4. Architecture becomes weaker,
5. And teams miss important problems.

These issues gradually make the company less efficient.

Capability-Based Planning Breaks Down

The study also showed that when the map does not show how strong or mature a capability really is, then planning based on that map slowly stops working. People may still open the BCMp, look at the capability names, and think they are using it the right way, but without any maturity details, the map cannot guide them. It does not tell them which capabilities are weak, which ones are improving.

Even if leaders try to use the map for decisions, it does not help them take real action because it hides the actual condition of the capability. It only shows the structure, not the health. So, leaders make plans based on what they think is true, not what the actual situation is inside the company.

The map does not become useless, the problem is that the map stays same for years, while the company, the technology, the people, and the processes all keep changing.

Over time, the gap between the map and real situation gets bigger. That is why the BCMp fails, not because it is wrong, but because it does not get updated with the business.

Table 1. BCMp vs BCMd Comparison

Traditional BCMp (Static)	Dynamic BCMd (Maturity-Based)
Static taxonomy only	Structural + maturity view
Updated once every few years	Continuous periodic evaluation
No performance insight	Performance + readiness scoring
Disconnected from operational data	Operational metrics integrated

Note: The key structural differences between BCMp and BCMd are summarized in Table 1.

Discussion

The findings of the study show that the BCMp becomes outdated not because people forget to update it, but because of how it is built. The map is fixed, while the business keeps changing. Since BCMp connects strategy, architecture, and transformation work, fixing its

problems needs a combined effort across people, processes, and technology.

People: Clear Ownership and Responsibility

One big reason the BCMp becomes old is that no one is clearly responsible for it.

If each capability has an owner, usually a senior leader, then someone is accountable for watching its health and noting when its maturity changes.

People also need to understand that capabilities are not just names on a list. They are affected by how teams work, how systems behave, and how processes run.

Better awareness and teamwork help everyone see capabilities as things that grow and change, not as static boxes.

Process: Making Capability Checks Part of Routine Governance

Even if ownership exists, the map stays the same unless capability checks becomes a routine process.

If maturity assessments are added to planning cycles, planning updates, architecture reviews, and quarterly business meetings, then capability changes are noticed regularly.

This helps the company understand which capabilities depend on others, which ones are working well, and where there is need for improvement.

Technology: Using Data for Capability Insight

Modern companies have a lot of important data in systems like ERP, CRM, workflows, analytics tools, and cloud platforms.

When this operational data is linked to capabilities, it can show how a capability is performing.

Tools, dashboards, and automated alerts can also point out when capability is getting stronger or weaker.

Technology helps fill the gap that the current static BCMp has as of today.

Integrating the Model: Toward Dynamic Capability Management

When people, processes, and technology work together, the company can move from a static BCMp to a Dynamic Business Capability Model (BCMd).

This new model keeps the structure of the BCMp but adds maturity and performance data.

It does not replace the old map, it upgrades it.

With BCMd, the map finally matches what is happening inside the company, making planning and decision-making much more accurate

Conclusion

Business Capability Maps (BCMp) are helpful for showing what a company does, but they do not change with time. That is why they stop being useful when the company changes. This study showed that the BCMp becomes old mainly because it is made in a fixed way and no one checks how the capability is improving or getting weaker. The map only shows the structure, not how well things are working.

When the BCMp stops showing the real situation in the company, it stops helping people make good decisions. Leaders start planning with old information. Projects get planned in the wrong order, money goes to the wrong places, and teams miss important issues. Slowly, this creates more mistakes, more wasted work, and more risk for the company.

This paper suggests a simple solution using people, processes, and technology.

1. **People:** Someone should own each capability and keep an eye on it
2. **Process:** The company should check capability maturity regularly
3. **Technology:** Real data should be used to see how the capability is performing

When these three things work together, the static BCMp turns into a dynamic BCMd, becomes more accurate and more useful. It becomes a live tool instead of a static diagram.

Future Research

Future research may look at some more promising areas. One area is to connect real company data automatically with the maturity model. It would also help to test the BCMd framework in different industries to see if it works the same way everywhere.

The main value of a capability map is not the map itself, but the decisions people make using it. If companies keep checking capability maturity regularly, they can make better decisions - this will impact on the planning, and the daily operations, even when things change fast.

More case studies from other types of companies would make the findings stronger. Research can also explore how this approach helps find missing capabilities that are not shown in BCM. Another interesting topic is how AI can be used to check maturity and support improvements in value streams. opportunity.

Data Availability

All data sources referenced in the manuscript are publicly available and properly cited. Since, nature of this study is conceptual, and focused on proposing a framework, it does not involve primary data collection.

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Conflict of Interest

The authors declare no conflict of interest. All authors have read and agreed to the published version of the manuscript.

Ethical Approval

This research is conceptual and design-oriented, developed using business architecture principles, business capability mapping techniques, and publicly available secondary sources. The study does not involve the collection of personal data, human subjects, or sensitive organizational information. Accordingly, no formal ethical approval was required, and the work adheres to standard academic guidelines for integrity, transparency, and responsible conduct in information systems research.

Author Contributions

The first author led the conceptualization, methodology development, literature review, model construction, analysis, visualization, and preparation of the initial manuscript draft. The second author provided continuous academic supervision, guided the refinement of the framework, and contributed to the review and editing of the manuscript. Both authors discussed the overall direction of the study, collaborated on improving the final structure, and approved the manuscript for publication.

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