Identifying Scenarios for Ambidextrous Learning in a Decoupling Thinking Context

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Abstract The human perspective and the flow perspective of businesses represent two areas of competence that study similar systems but with different frame of references. The human perspective involves ambidextrous learning that concerns how knowledge is developed and used for different purposes by individuals or groups of individuals. The development of knowledge for new situations is referred to as 'exploration', while 'exploitation' refers to execution in known and stable contexts. Furthermore, decoupling thinking is important from a flow perspective and concerns how a value-delivery package is created. This type of thinking decouples the flow perspective into segments with different characteristics that are significant for process management. The examples presented in this paper are distinctive drivers of flow in terms of speculation or commitment, and the level of customisation. By combining these two perspectives, a set of 15 scenarios is identified for further research on ambidextrous learning in a decoupling thinking context.

Keywords: organisational ambidexterity, learning, efficiency, effectiveness, decoupling points, customisation, customer order decoupling point (CODP).

1   Introduction

Combining effectiveness with efficiency has been identified as a fundamental challenge for business managers [1]. Drucker summarises this challenge as: having the ability to do the right things (effectiveness) in combination with the ability to do things right (efficiency). For an individual task, this can be considered as a chronological challenge where the first step is to establish effectiveness. Once this is achieved, the focus shifts to efficiency. This can be summarised as: first decide what to do and then decide how to do it. From the human perspective of an organisation, tasks develop over time and in aggregate; therefore, the organisation must sustain a mix of these two capabilities. Such a mix enables the organisation to execute well-defined tasks through a process of *executional learning*[1] (EL) and to develop the same tasks and identify new tasks through a process of *developmental learning* (DL) [2]. The ability to handle both types of learning

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[1] The concept of executional learning corresponds to the theoretical concept of *adaptive learning* used by Ellström [2].

simultaneously is referred to as *organisational ambidexterity (OA)* [3-5]. This relates to March's [6] idea about an organisation's need to explore and exploit. Exploration involves effectiveness and a search for new knowledge, discovery and learning to find new products and new ways of working. Exploitation focuses on the already known and involves efficiency, control, certainty, variance reduction and learning to execute tasks according to existing products and processes. March [6] argues that exploration and exploitation are competing logics, and exploration generates more bad ideas than good ones. Therefore, exploitation is favoured over exploration, and if nothing is done to counter, obsolescence and failure are the inevitable result. Tushman and O'Reilly [7] began addressing this dilemma by bringing Duncan's [8] largely overlooked work on organisational ambidexterity into the mainstream: 'Periodically in scholarly research there emerges a topic that catches the interest of researchers and leads to an outpouring of studies. In the study of organisations, organisational ambidexterity appears to be one such topic.' [4], p.253.

Shifting the focus from individuals performing tasks to the context of the tasks (i.e., the value-adding flow) reveals a different perspective on why the balance between effectiveness and efficiency is such an important concept. From a flow perspective, the activities of a flow segment exposed to individual customer requirements face greater uncertainty then activities of more standardised characters. In a standardised context, activities can emphasise efficiency as the repetitiveness of the activity supports continuous improvement. However, a customer facing activity has a greater need to support the variety of requirements that the customers are expected to state, and in such a context, the emphasis on effectiveness is much greater. This dual capability separates flow into different segments where, for example, one segment is forecast-driven (also known as speculation-driven) and another is customer-order-driven (also known as commitment-driven). Alternatively, one may be based on standardised offerings and the other may be based on customised offerings. This paper refers to the flow approach as 'decoupling thinking'.

A flow-based learning environment involves collaboration between individuals. Based on the decoupled flow perspective, the organisation consists of different flow segments. Each flow segment provides unique conditions for decision making and performing activities and, hence, learning. The purpose is to identify scenarios that represent the relationship between the human perspective, which is based on learning and is related to ambidexterity, and the flow perspective, which is based on balancing and is related to decoupling thinking.

The paper is organised as follows: the next section outlines the research approach and theoretical background, which covers the human and flow perspectives. Thereafter a synthesis is provided, resulting in 15 scenarios, as well as empirical observations and managerial implications summarise the findings. Finally, concluding remarks are made.

2   Research approach

The empirical data in this paper is based on experience from four different research projects performed from 2008–2017, which were designed as qualitative case studies

in more than 10 industrial companies. Two of the research projects employed a human perspective and the other two research projects were based on the flow perspective. The data were collected through interviews, shadowing, observations of work meetings, diaries and workshops.

3 Theoretical framework

The activities performed in a business can be seen as the aggregate of all actions performed by machines and humans. In this paper, an action denotes the smallest entity of work (i.e., transformation) that an activity can be divided into. The human perspective focuses on a business' resources, which perform tasks that are a collection of activities. Each activity also represents a building block for the flow segments, which are related to processes that provide customer value. This paper refers to this as the flow perspective of a business. The aggregate of the tasks in the human perspective and the aggregate of the segments in the flow perspective represent the same amount of work because they each represent all work performed in a business (i.e., the same total set of activities). However, the two perspectives represent different contexts: the human perspective is closely related to organisational entities (e.g., individuals or teams, which are related to ambidextrous learning) and the flow perspective involves work performed from a process perspective, which is related to decoupling thinking.

3.1 Human perspective: ambidextrous learning

As the name suggests, the human perspective involves humans, which Dewey [9] describes as complex. On one hand, humans need and ask for structures, instructions and guidance in social systems in order to achieve safety and control. On the other hand, as soon as tasks become routine, humans try to improve and do things more quickly and efficiently. Therefore, structures are often challenged and questioned. When humans follow their impulses, they follow structures and change them, often simultaneously. Humans getting together in complex settings are part of an organisation that is dealing with different tasks. In the current study, this scenario is referred to as 'the ambidexterity dilemma', which refers to the ability to deal with two different types of logic at the same time.

   The literature on learning in organisations identifies two different logics of learning that are related to the ambidexterity dilemma [2] and are associated with tasks that are performed in order to be executed or developed. Exploitation requires executional learning (EL) that focuses on gathering knowledge and problem solving based on a given set of skills, concepts, rules and methods. This logic of exploitation emphasises efficiency and refutes variations and new ideas. In contrast, exploration involves developmental learning (DL), which focuses on change, renewal and development of new knowledge where established concepts and knowledge are questioned. Therefore, this logic of exploration embraces variation and promotes new ideas. Both exploitation and exploration play a significant role and should be taken into account and regarded as complimentary rather than competitive. The two different logics can sometimes stand

in opposition to each other in terms of using an organisation's finite resources and require balance to reproduce and maintain the product or system that is being transformed or developed [2,6]. They may also come into conflict during work meetings when groups are expected to handle issues of routine character (exploitation) while adapting to new preconditions (exploration). Previous research concludes that these two dimensions need to be separated in time and space and approached by different types of communication during team meetings in order to be effective [10]

The dilemma of OA has received considerable attention and a great deal of research has been conducted over the last 15 years. However, many questions remain unanswered. Some studies have been undertaken at the firm level in relation to the market and business units, while some projects focus on structural or contextual ambidexterity and use large samples and longitudinal data [4]. Other researchers [11] have focused on individual ambidexterity in isolated experimental studies in a controlled laboratory. Individual ambidexterity is known as a person's ability to use exploitation and exploration in the same task. However, little evidence and limited organisational and psychological literature exists to determine what conditions supports high individual performance in the modes of exploitation and exploration. In structural ambidexterity, the organisational focus categorises individuals into different functions within business units. Contextual ambidexterity emphasises how culture can foster environments where individuals can move between exploitation and exploration [12]. Less research has been performed on the role that teams play in dealing with the OA dilemmas according to different actions of learning.

A review [3] of the empirical literature reveals two approaches to balance the OA dilemma. One approach involves the notion that exploration and exploitation occur simultaneously, often in dynamic environments, and to be efficient, the organisation must balance the two types of actions simultaneously. Stable environments support different approaches based on periodically switching between the two types of actions. Chen and Katila [3] found that successful firms in the industrial sector managed uncertainty by moving from a simultaneous approach to a sequential one. The reasons for this shift were to make the environment more stable, make the two dimension of the task easier to handle and reduce the risk of maladaptation in the direction of either exploitation or exploration. In a study on ambidexterity at the project level, O´Reilly and Tushman [4] found that the separation of exploratory and exploitative projects was associated with improved performance. O'Reilly and Tushman [4] recommended that future research on OA focus on the dilemma identified by March [6] to avoid a 'smorgasbord of organisational topics' [4]. However, the missing link in the research is finding other structures and mechanisms to transfer knowledge from individuals in communities of practice to other entities (e.g., teams) within the organisation. There are also some indications that time, tensions and contradictions are neglected as important factors of change in organisations [13].

In summary, exploitation and exploration represent two learning-related dimensions of an action where an action is defined as the smallest building block of a task performed by an organisational entity. By combining the two learning-related dimensions, it is possible to identify three types of learning (see Table 1). By combining the two dimensions in this fashion, a scenario indicating 'no learning' is identified. In practice,

it is reasonable to expect that some type of learning take place; hence, this is indicated by N/A in the table. EL and DL each represent a fundamental approach to learning where only EL or DL is valid. In EL, a task is already planned and the focus is on the action to be executed because the action is already well defined. Variation should be avoided in this scenario. In DL, the action involves significant variety and usually involves exploration of new challenges. Consequently, actions that involve routinized procedures and only concern existing knowledge are less suitable. Finally, DEL is a challenge that deals with both dimensions of an action where a task requires new ideas and new ways of thinking in the same situation (i.e., developmental and executional learning). There are situations where both dimensions are mixed unconsciously at the same time, such as when DL and EL actions are performed simultaneously. Those situations can be handled easily by separating the different types of actions in time and space, meaning they are not handled at the same time and probably not at the same place (e.g., in different meetings). The more complicated situation, which is identified here, is when a situation requires both dimensions at the same time. These situations require special action that is yet to be defined. In other words, integrated DEL should not be neglected but, rather, encouraged as a separate type of learning challenge and positioned in relation to other similar types of action (DL and EL).

Table 1. Identifying three types of actions based on ambidextrous learning.

	No exploration	Exploration
No exploitation	N/A	DL
Exploitation	EL	DEL

3.2 Flow perspective: decoupling thinking

Customer value is created by the resources that a business possesses and the processes that represent how resources interact. The value-adding flow is defined based on some key properties of the customer's requirements. The main input from a process perspective is the trigger of the process, which this paper refers to as the 'flow driver' [14]. If the customer triggers the flow, it is referred to as 'commitment driven' (CD). In this case, the customer must wait for the delivery activities to be performed. An alternative is for the business to initiate the activities of the flow on speculation about future customers, which is referred to as 'speculation driven' (SD). In practice, providing customer value also involves the uniqueness of the offering, which this paper refers to as the 'differentiation of flow' [15]. A standardised flow is customer generic (CG) and fits all customers based on the flow. At the other extreme, a flow may be unique for each individual delivery to the customer, which this paper refers to as delivery unique (DU). Any activity that is DU should only be initiated based on explicit customer requirements (CD) in a 'one-off' fashion that creates the combination of DU-CD in Table 2. Correspondingly, a SD flow should never be performed with DU, as illustrated by N/A in Table 2. On the contrary, a standardised offering can be created for future use on speculation (CG-SD) or in response to a delivery request (CG-CD). In-between these two types, a flow may be unique for a specific customer (customised) with recurring

deliveries. For recurring deliveries, it might be appropriate to speculate (CU-SD) even if the preferable approach usually would be to focus on individual delivery requests from the customer (CU-CD).

Table 2. Identifying the five types of flow segments for decoupling thinking.

	Speculation driven (SD) (efficiency)	Commitment driven (CD) (effectiveness)
Customer generic (CG) (standardised)	CG-SD	CG-CD
Customer unique (CU) (customised - recurring)	CU-SD	CU-CD
Delivery unique (DU) (customised - one-off)	N/A	DU-CD

4 Scenarios for ambidextrous learning in a decoupling thinking context

By virtue of their inherit focuses, ambidextrous learning is based on the human perspective and decoupling thinking is based on the flow perspective. The human perspective represents individuals or groups of individuals (i.e., teams); therefore, learning is explicitly related to the human resources of the business. The flow perspective represents the business logic in terms of activities that provide customer value. Consequently, these two perspectives have weaknesses that reflect the strength of the other perspective in the sense that learning has weak bonds with the customer-oriented value-creation process and decoupling thinking considers all resources to be objects with certain well-defined characteristics. By integrating the two perspectives (see Table 3, which is a combination of Table 1 and Table 2), it is possible to identify 15 different scenarios of ambidextrous learning and decoupling thinking. Each scenario represents a unique combination of action of learning, which is related to different dimensions of tasks to be performed, and decoupling thinking, which is related to flow segments as a pattern of activities to be performed. Since the flow perspective is based on the customer's requirements and the business model, this approach offers a transitive relationship that leads to a connection between types of learning and how it should be positioned in relation to how profitability is established through the value-adding flow. Some overall observations can be made with a closer look at Table 3. In general, delivering unique offerings requires a more innovative approach that is typical for developmental learning, which is represented in the top left-hand corner of Table 3. In comparison, flow segments with more standardised characters are more prone to executional learning because there is a limited need for innovation in this context (see the bottom right-hand side of Table 3). As a consequence, the diagonal from the top left to bottom right of Table 3 is expected to represent the best match between the flow segments of the rows and learning actions of the columns.

Table 3. Fifteen scenarios for ambidextrous learning in a decoupling thinking context.

	Developmental learning (DL)	Developmental and executional learning (DEL)	Executional learning (EL)
Delivery unique and commitment driven (DU-CD)	I	II	III
Customer unique and commitment driven (CU-CD)	IV	V	VI
Customer unique and speculation driven (CU-SD)	VII	VIII	IX
Customer generic and commitment driven (CG-CD)	X	XI	XII
Customer generic and speculation driven (CG-SD)	XIII	XIV	XV

5 Conclusions

Learning is traditionally approached from a task perspective where the focus is on the actions required to perform a specific task. This paper outlines a process-based approach where the requirements for learning actions are identified in relation to the flow segments. The activities of the flow segments also constitute the foundation for the tasks and provide a gateway between the customer's requirements, which are related to flow segments, and organisational entities, such as teams, and related learning. Moreover, the transitive relationship between the customer's requirements and learning actions identifies a new type of learning challenge that is based on a combination of exploration and exploitation and cannot be disintegrated into either exploration or exploitation. This learning challenge represents an integrated combination of developmental learning and executional learning that this paper refers to as DEL and is an interesting topic for further research. Besides this finding, the most obvious path for future research is the matrix presented in Table 3. The 15 scenarios in Table 3 have been identified, but more work is necessary in order to understand how to approach these scenarios. For example, it could be possible to identify opportunities for more normative descriptions by using empirical observations to populate all of the scenarios. Based on such information, the framework outlined in Table 3 constitutes an important foundation for providing decision-making support for developing organisational learning.

Acknowledgement

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