Indicative Public Value Mapping of Artificial Intelligence Exercise

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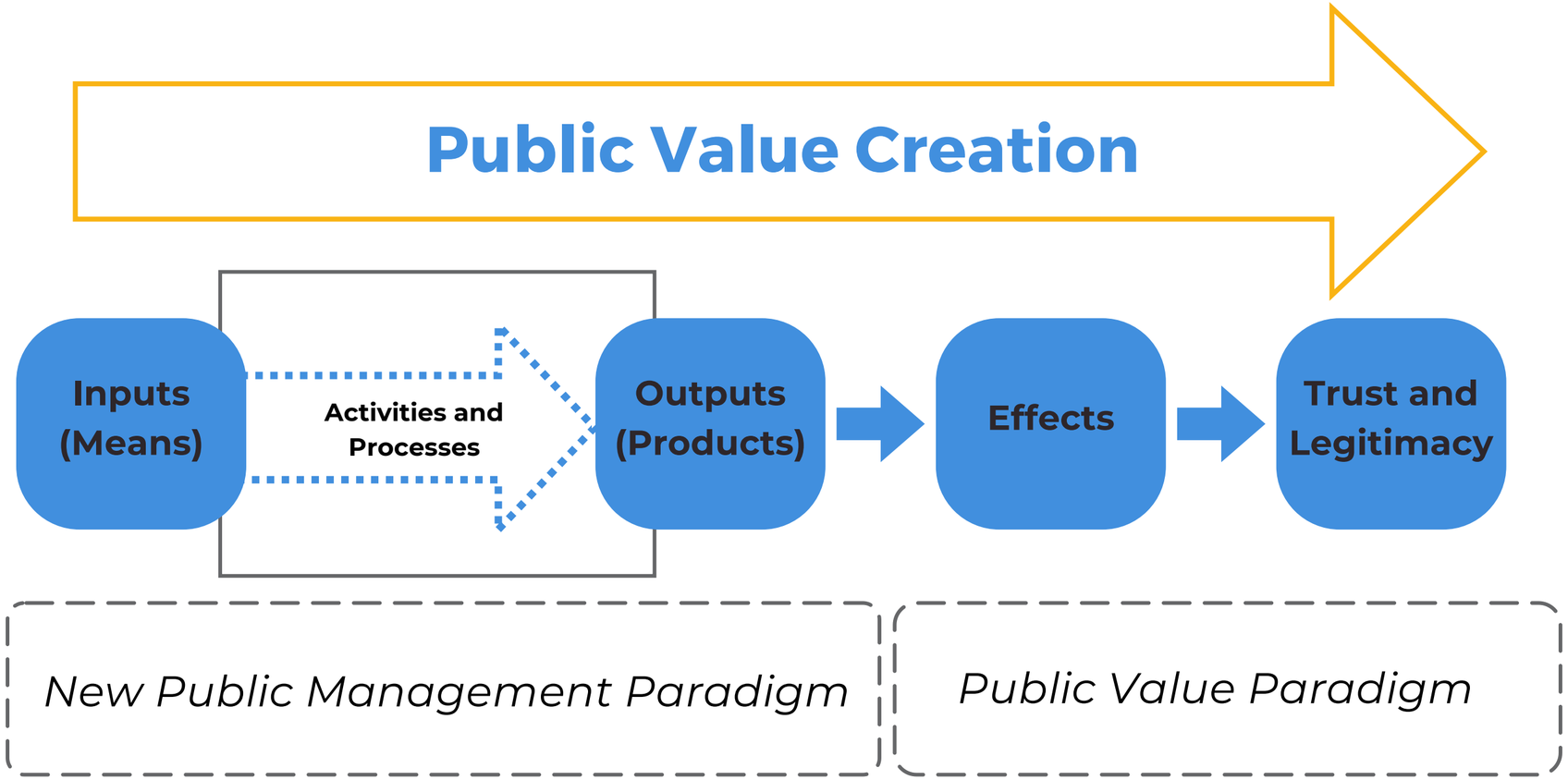

Source: Adapted from Amrani et al., 2022.

The Public Value Creation paradigm extends the value chain to incorporate effects, and trust and legitimacy as part of the outcome process

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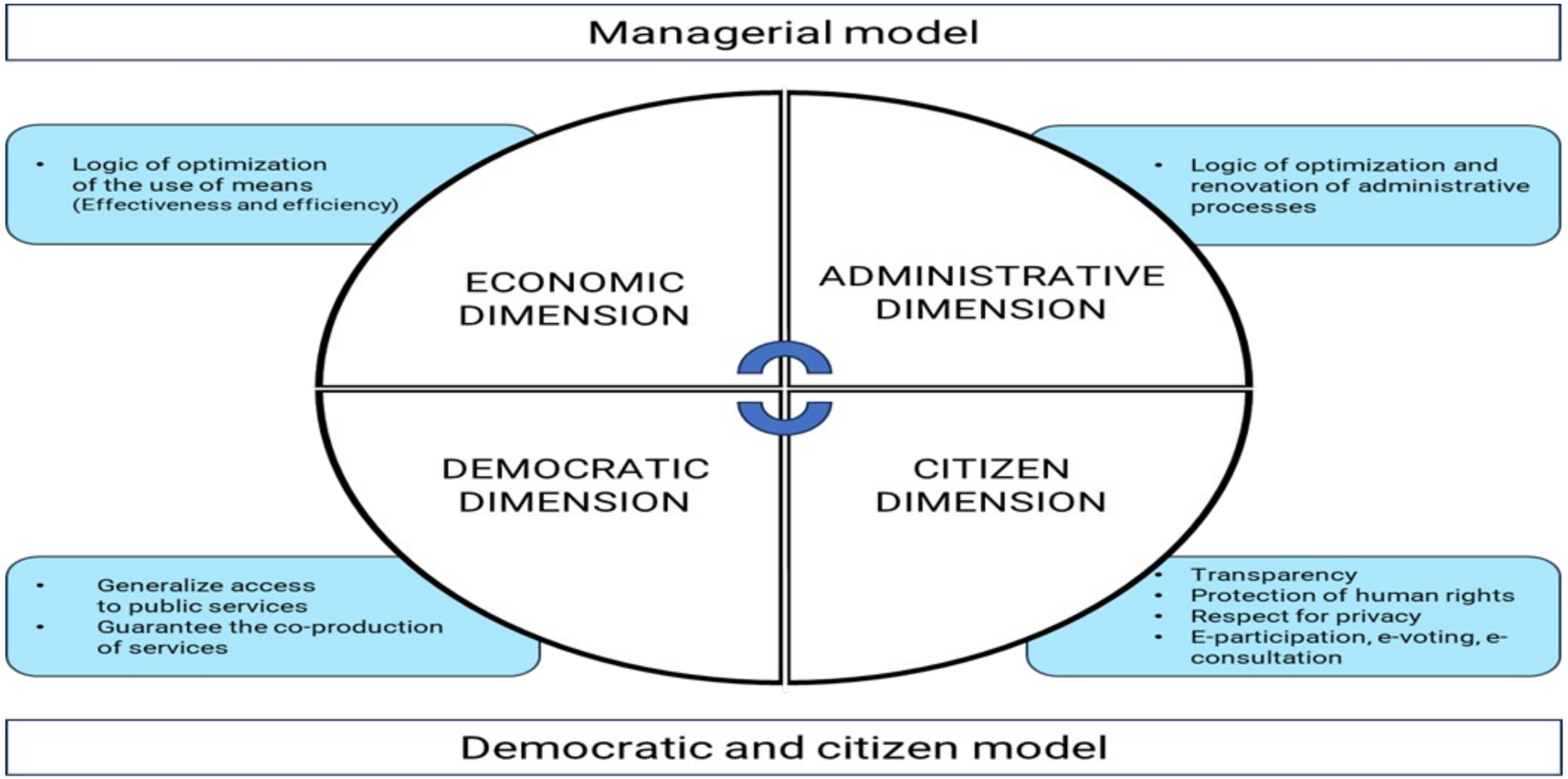
Framework for Assessing the Effectiveness of Artificial Intelligence on Public Value Creation



Adapted from Amrani et al., 2022

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Economic Dimension

Category	Component	Characteristic
Benefits	Costs	
	Efficiencies	
	Automating processes	
Threats / Considerations	Costs	
	Resources	
Risks	Economic harm	

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Administrative Dimension

Category	Component	Characteristic
Benefits	Security and accuracy	
	Sustainability	
Threats / Considerations	Competence	
	Infrastructure	
	Data availability	
	Legality	
Risks	Security	
	Integrity	

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Democratic Dimension

Category	Component	Characteristic
Benefits	Citizen interaction	
Threats / Considerations	Accountability	
	Cooperation	
Risks	Transparency	
	Trust	
	Democracy	

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Citizen Dimension

Category	Component	Characteristic
Benefits	Service quality	
	Personalization	
	Accessibility	
Threats / Considerations	Service quality	
Risks	Data quality	
	Loss of jobs	

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Economic Dimension

Category	Component	Characteristic
Benefits	Costs	Adopting the AI system should **reduce the overall cost** of operations with **maximum ROI**.
	Efficiencies	The AI system should make the process more **efficient and effective** and save time.
	Automating processes	AI systems should be used in different ways to **automate operations**.
Threats / Considerations	Costs	The cost to develop new technological solutions, particularly within AI are **large and will increase**.
	Resources	**Limited network infrastructure and capacity**, particularly latency, could challenge the processing and response time of systems.
Risks	Economic harm	AI can lead to **discrimination, lower trust, cause economic harm and affect how democracy functions**.

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Administrative Dimension

Category	Component	Characteristic
Benefits	Security and accuracy	Workflow processes of administrative records can be monotonous and time-consuming for staff, which can lead to mistakes. The adoption of AI to process workflow processes **frees case handlers to focus on more complex cases**, with a **reduced risk for mistakes**.
	Sustainability	Artificial intelligence models can be used to achieve **higher levels of sustainability**, **optimize processes** and **integrate value chains**.
Threats / Considerations	Competence	An adequate number of **skilled individuals with the requisite knowledge** for developing and using AI technology is critical. Further, there should be at least a **basic level of knowledge and competence in AI** within the broader society to foster sustained uptake.
	Infrastructure	Various **types of computation, network and technology infrastructure** are required to ensure the full development and utilization of AI within the public sector.
	Data availability	AI models also require **access to large data sets** for training. Critical, in this regard, would be the ability for these data sets to be combinable with different data.
	Legality	Requisite **laws, regulations, policies, and procedures** are necessary to ensure appropriate protections.
Risks	Security	As AI systems become more advanced and connected, there is a **risk of increased vulnerability and exposure to cyberattacks**.
	Integrity	**Data integrity can be compromised**, leading to **inaccurate outcomes and decisions**, including data manipulation that could lead to **misinformation**.

Democratic Dimension

Category	Component	Characteristic
Benefits	Citizen interaction	Automating various processes to **leverage AI tools**, such as ChatBots and voice processing systems, can **improve citizens' contact experience**.
Threats / Considerations	Accountability	If the society is to accept the growing role of AI in areas which previously included human intervention, data protection, transparency, and **ethical AI** use are required to ensure **public trust** that the **systems are accountable and outcomes predictable and explainable**.
	Cooperation	**AI deployment across public sector agencies should be fairly homogenous**. The absence of inter-agency cooperation in research, development, data availability, and competency could, for example, lead to **unnecessarily onerous adoption costs** where each agency "**reinvents the wheel**".
Risks	Transparency	Unexplainable AI and other **Blackbox AI algorithms** can lead to outcomes that **undermine fairness, predictability and transparency in the delivery of services**.
	Trust	**Overly optimistic reliance on AI and overly pessimistic scepticism** can **erode public trust**, particularly when systems are in their nascent phase of deployment, thus **impacting their long-term adoption**.
	Democracy	AI can **lower the threshold of attacks against democratic functionality** through **misinformation** and the **perpetuation of bias** found in training data.

Citizen Dimension

Category	Component	Characteristic
Benefits	Service quality	The **opportunity to implement assessments and analyses** that are beyond human capability can contribute to **improving the quality of service delivered to citizens**.
	Personalization	As a result of their built-in capabilities for learning, AI systems are able to **understand the customer and adapt the interaction** to ensure a better user experience.
	Accessibility	Adopting AI systems in the public sector provides citizens with **increased levels of access to services**, both in terms time of day, as well as location for accessing the service.
Threats / Considerations	Service quality	The use of supplemental and other types of data to compliment the primary corpus could raise questions regarding **ownership**, **quality assurance** and **accessibility**.
Risks	Data quality	Inaccurate and otherwise undesirable results can pose a risk if the data quality is insufficient, such as **data transcription errors**, **systemic faults in data collection**, and **inaccurate sources and labelling of data**.
	Loss of jobs	Risk for job loss is **not limited to menial operations**, and could include para-professional positions, whose process of analysis can be categorized as routine and repetitive.

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SUBREGIONAL HEADQUARTERS FOR THE CARIBBEAN

Thank you!

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