

Evolution of Marketing: A Cambodian Perspective

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Abstract

This research briefly sketches the evolution of marketing from traditional marketing mix (4P) to recent developments including Artificial Intelligence (AI) and concisely defines 10 marketing topics in four different evolution stages. Then an online survey gauges the perceptions of business school students and business professionals about the marketing maturity levels in Cambodia. Results indicate that marketing in Cambodia is still in an elementary stage.

Keywords: Artificial Intelligence, Marketing Strategy, Cambodia.

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We are in a digital age where half of the world population has already access to the Internet (Internetworldstats.com, 2017; Geeks in Cambodia, 2017); and with the use of smart devices daily lives of billions of people are still changing rapidly where consumers are slowly becoming digital devices (cf., Mena, 2012). In this digital age tech-giants use Artificial Intelligence (AI) to serve digital consumers with, for example, Siri from Apple, Cortana from Microsoft, Alexa from Amazon.com, Watson from IBM, Twyla and Jarvis from Facebook, Google Assistant and Cleverbot from Google, etc. (Business Insider, 2017). In the meantime, business journals discuss AI and robotics (The Economist 2017; Accountancy Futures, 2017), events are organized around AI (Efma, 2017), scholarly articles and books are published on AI (Huan & Rust, 2017; Tegmark, 2017; Frank et al., 2017). Technological progress thus naturally influences how businesses operate and consequently how marketing is done. In this paper we will attempt to describe the evolution of marketing in general, and then will investigate the marketing maturity levels in Cambodia.

Evolution of marketing: 4 stages

Marketing is an indispensable part of any business and traditionally defined as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and values with others (Kotler & Armstrong, 2003). Businesses rapidly changed in the last few decades and marketing inevitably followed this progress. According to Kotler, Kartajaya and Setiawan (2017) marketing evolved first from product driven to customer centric, then to human centric and finally from traditional to digital. In this paper we defined 4 stages to elaborate this evolution: Marketing Mix (4P) stage, CRM stage, Analytics stage and Artificial Intelligence (AI) stage.

The 4P stage is based on product, price, place and promotion framework, also known as the marketing mix (McCarthy & Jerome, 1964). The marketing mix has been defined as the set of marketing tools that the firm uses to pursue its marketing objectives (Kotler, 1990, 2003). In this stage companies focus on product quality and try to reach broad group of customers with traditional advertisement in the mass media. We will call this stage as “One-to-Many Marketing”.

The CRM stage is based on Customer Relationship Management approach which focuses on company's interaction with customers by predominantly using data analysis. In this approach, customer data compiled from different channels, such as website, telephone, email and more recently, social media. Taking CRM as a basic foundation, Peppers & Roger (1997) introduced the relationship marketing concept, also called “One-to-One Marketing” where companies should be willing and able to change behaviors toward an individual customer.

The analytics stage is a natural extension of CRM stage, in which big amounts of data are collected but hardly used. Analytical marketing therefore uses statistical techniques such as data mining and pattern recognition to analyze the big customer data coming from various channels. In this stage companies are able to adjust their marketing offers even per individual based on customers' online and offline behavior with the help of advanced software and algorithms. Therefore we will call this stage as "Machines-to-One Marketing".

The Artificial Intelligence (AI) stage is the extension of analytics stage where machines start learning how to learn and start taking over the responsibility of humans in business, marketing and even in driving. Amazon.com's product recommendations and Tesla's autonomous vehicles are examples of this stage where human decisions are replaced with algorithms and machine decisions. So, we are heading to a direction where AI machines such as Tesla cars will autonomously deal with other AI machines such as charging stations on the way, all without requiring a human interference. Therefore we will call this stage as "Machine-to-Machine Marketing".

10 marketing topics in Cambodian context

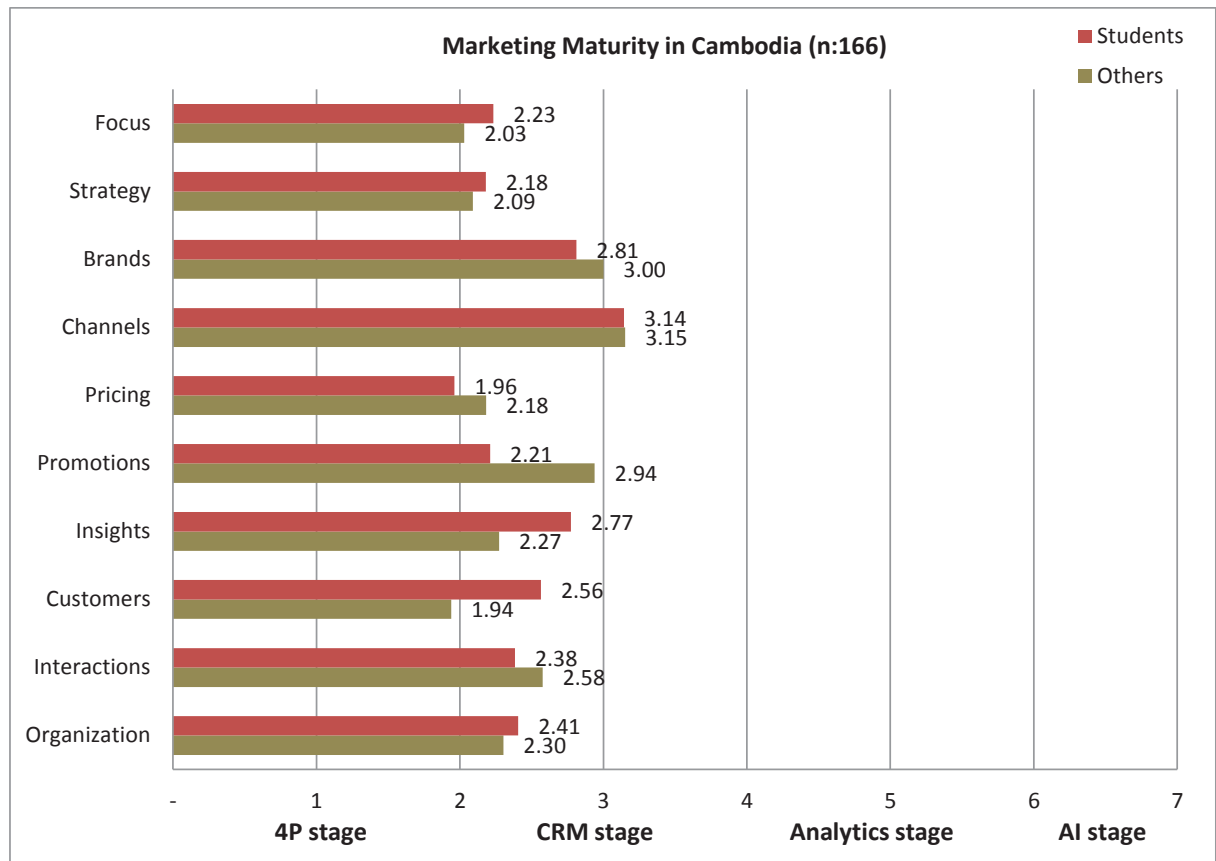
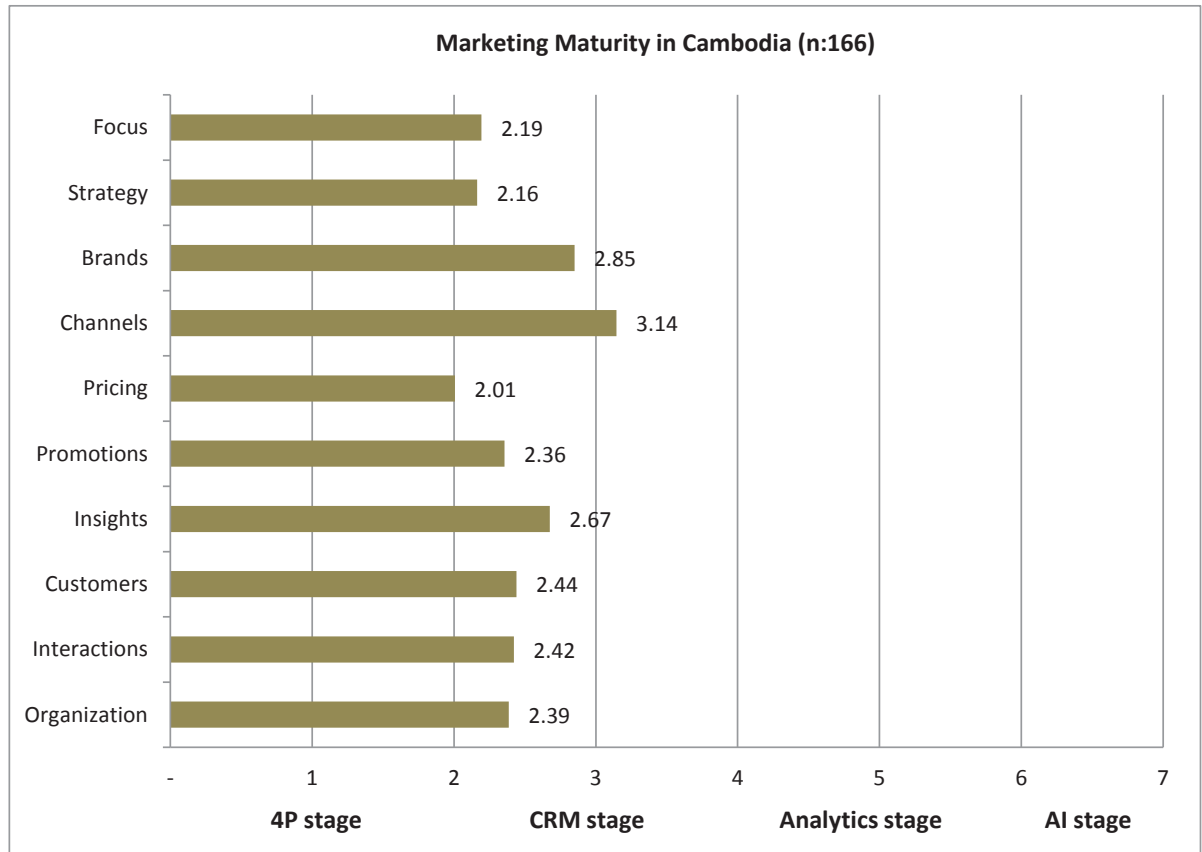
In order to elaborate the four evolution stages in marketing, we have selected 10 essential topics ranging from marketing strategy to marketing organization; and described these topics with a few key words in four stages as our initial assumptions (see table below).

We then tested these descriptions via an online survey within Cambodian context with 133 CamEd Business School students and 33 business professionals. We used a 7-point scale where (1) represents 4P stage, (3) represents CRM stage, (5) represents Analytics stage and (7) represents AI stage; respondents thus were also able to choose a maturity levels between scales.

Marketing from 4P framework towards Virtual, Artificial Intelligence (AI) based, Machine-to-Machine and Autonomous...

	4P: 1 to Many	CRM: 1 to 1	Analytics: Machines to 1	AI: Machine to Machine?
1 Focus	▪ 4P generation with product focus	▪ CRM generation with customer focus	▪ Analytics generation with data focus	▪ AI & IoT generation with machine focus
2 Strategy	▪ Quality products & Customer satisfaction	▪ Enriched services & Customer loyalty	▪ Big Data and analytics & Customer experience	▪ Machine learning & Virtual journeys
3 Brands	▪ Manufacturers and service providers	▪ Retailers and large distributors	▪ E-commerce and technology firms	▪ Advanced technology and AI solution providers
4 Channels	▪ Brick companies with large retail networks	▪ Brick & Clicks firms with multichannel distribution	▪ Clicks only firms with online & mobile channels	▪ Omnichannel firms with virtual integration
5 Pricing	▪ Cost based, static pricing and discounts	▪ Value based pricing with bundled campaigns	▪ Rule based pricing with dynamic adjustments	▪ Artificial intelligence based & autonomous
6 Promotions	▪ Catalogues, mass media & TV commercials	▪ Mass digital mailings, spam, telemarketing	▪ Personalized offers with big data & analytics	▪ Autonomous Machine-to-Machine promotions
7 Insights	▪ Traditional research: Descriptive	▪ Enterprise feedback systems: Associative	▪ Multichannel and Big Data based: Predictive	▪ Omnichannel & IoT based: Prescriptive
8 Customers	▪ Geographic and demographic segments	▪ Segments and personas for value based targeting	▪ Digital profiles for behavioral targeting	▪ IoT clusters & Virtual Assistant targeting
9 Interactions	▪ Human to Human: Service employees	▪ Human to machine: ATM, IVR, WWW,...	▪ Machine to Human: Virtual Assistants (VA)	▪ Machine to Machine: VA to Virtual Service Reps.
10 Organization	▪ Marketing and Sales Managers	▪ Marketing Managers with CRM Departments	▪ Chief Marketing Officers & Chief Digital Officers	▪ Chief Data Scientists & Chief Cognitive Officers

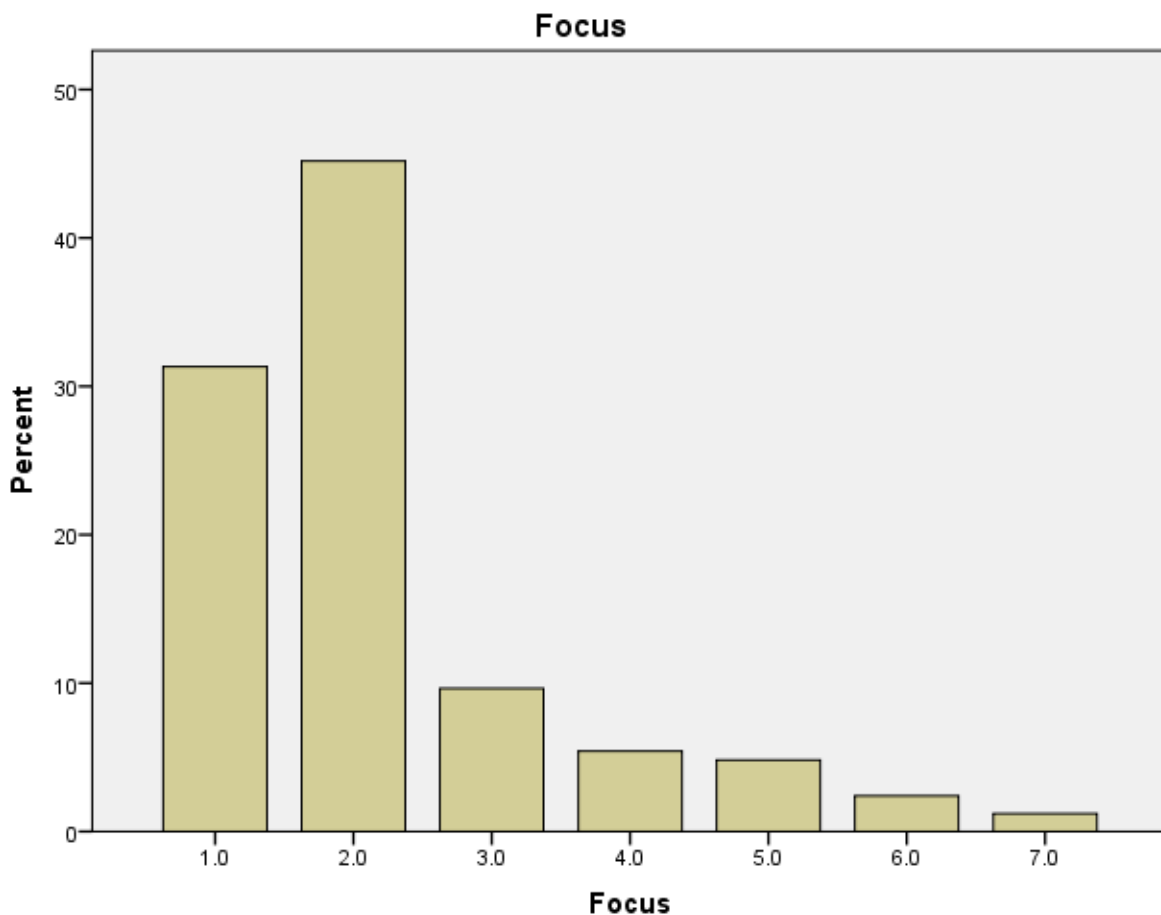
Survey results (see charts below) indicated that marketing in Cambodia seems to be between 4P and CRM stages with an average rating of 2.46. Furthermore, (almost) no significant differences found between students and business professionals (others) as well as among the length of working experience and involvement with marketing activities (see appendix, ANOVA analyses).



1) Marketing Generation and Main Focus

Marketing management already shifted from traditional marketing mix (4P) with product focus to CRM with customer focus. Current shifts seem to be happening from marketing analytics with data focus to Artificial Intelligence (AI) & Internet of Things (IoT) with machine focus.

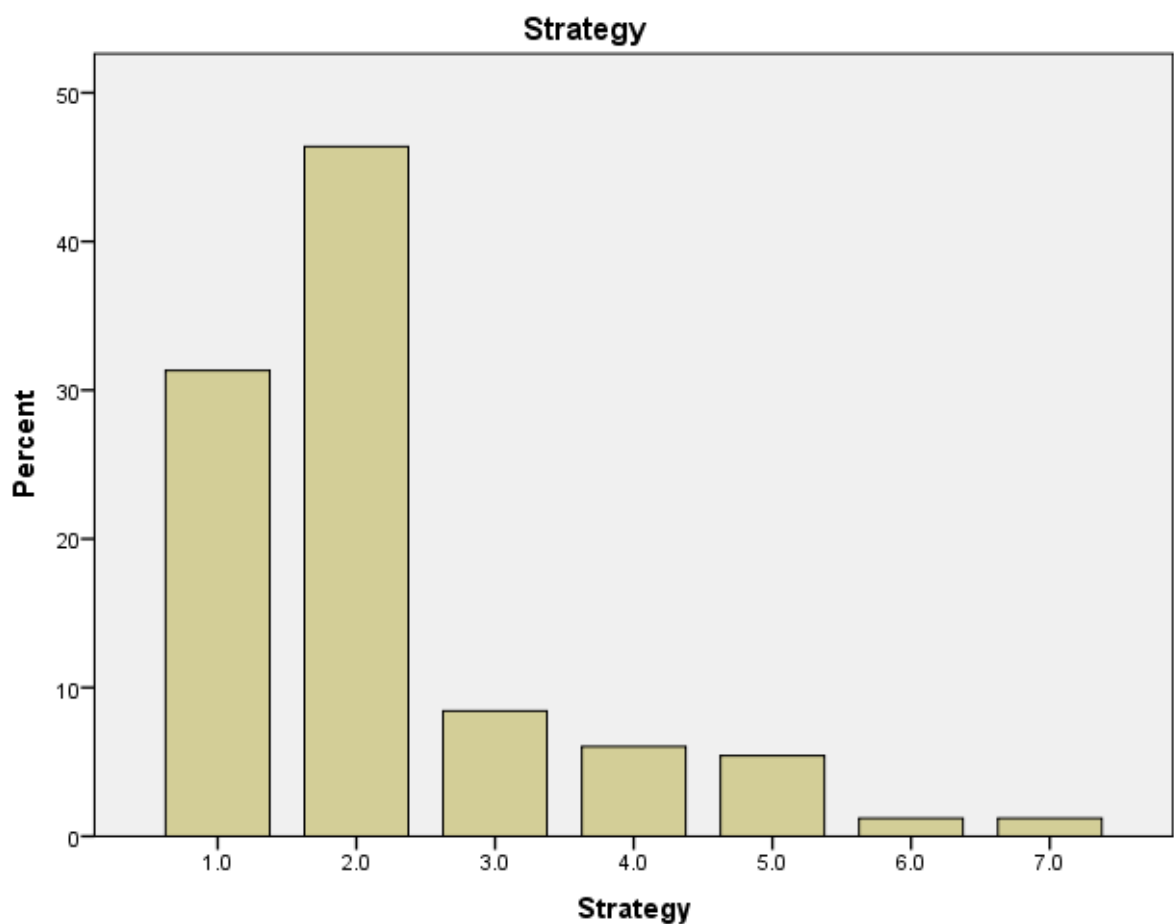
Survey results, with 2.19 average rating, shows that marketing generation and marketing focus is still in early stages in Cambodia and almost half of the respondents evaluate it between 4P and CRM stages.



2) Marketing Strategy

Marketing strategies evolved from product quality and satisfaction to customer loyalty and retention; and this evolution continues towards seamless digital solutions with (AI) among Virtual Service Representatives (VSR) of companies and Virtual Assistants (VA) of consumers.

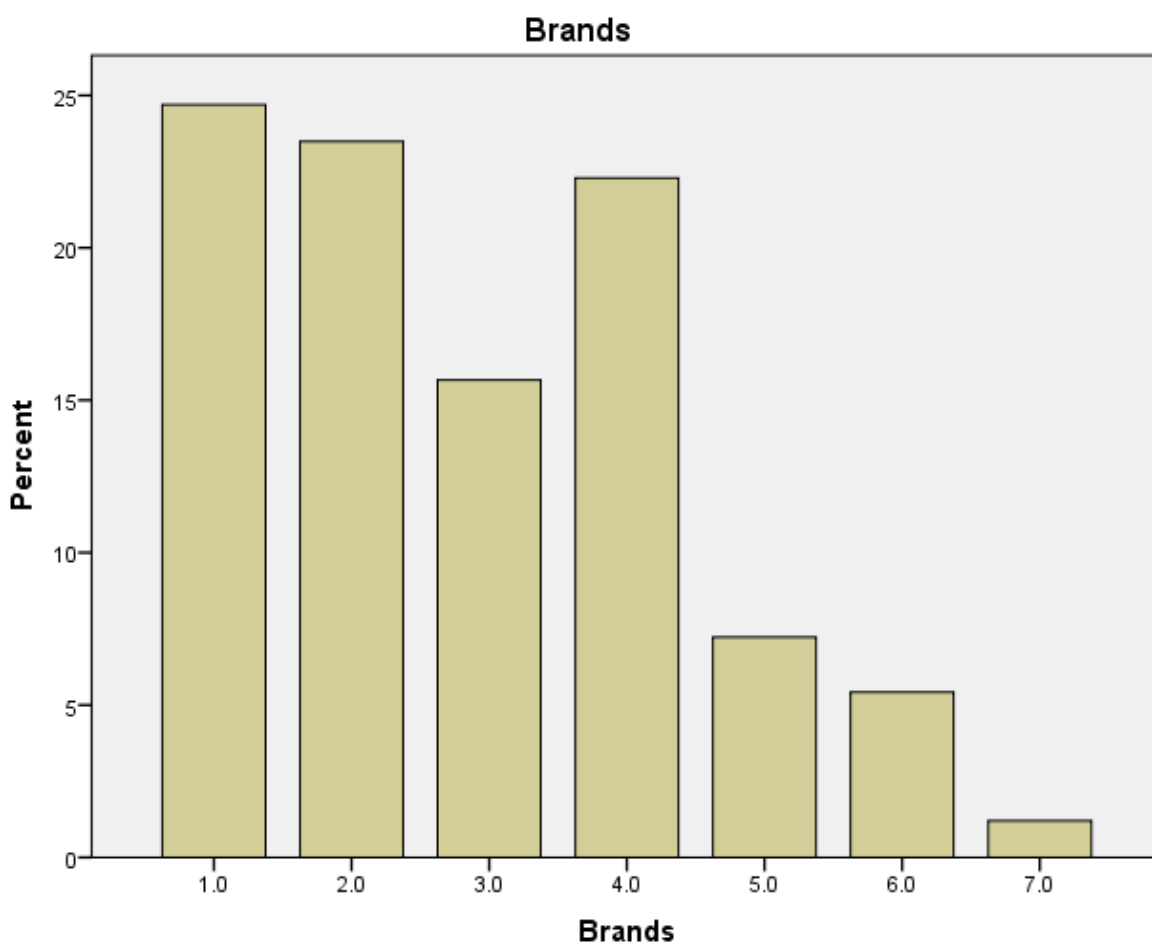
Survey results, with 2.16 average rating, indicate that marketing strategy is still in early stages in Cambodia and nearly half of the respondents evaluate it between 4P and CRM stages.



3) Brands

Strong brands firstly shifted from manufacturing (e.g., Ford, Unilever) and services (e.g., HSBC, Virgin) to large retailers (e.g., Walmart, Tesco); then from technology firms (e.g., Apple, Microsoft) to digital facilitators (e.g., Amazon.com, Google). Next shift seems to be AI based and autonomous service providers (e.g., Facebook, Uber).

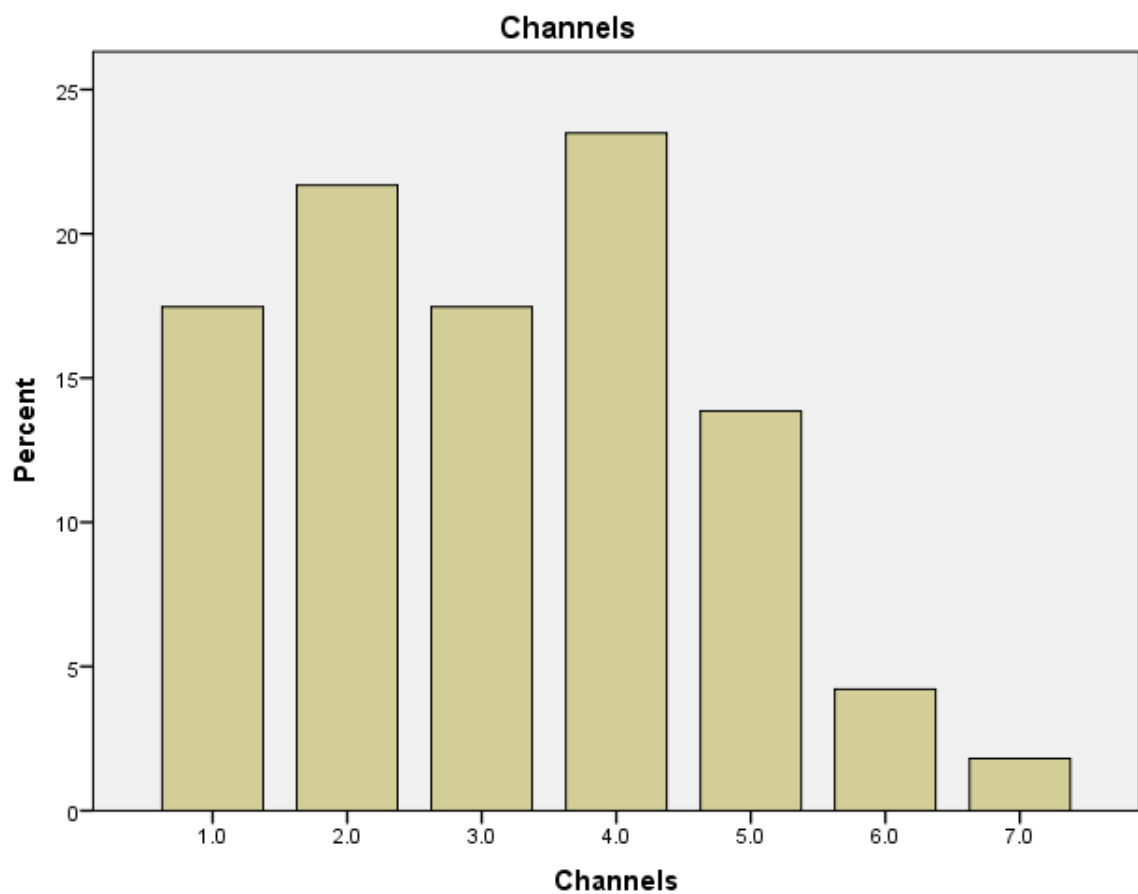
Survey results, with 2.85 average rating, suggest that brand perception in Cambodian market is developing towards the analytics stage.



4) Channels

Brick & click channels already disrupted with click or mobile only firms. AI based solutions with smart devices, virtual assistants and robotics will boost the marketing space with omnichannel settings and soon with Machine-to-Machine interactions.

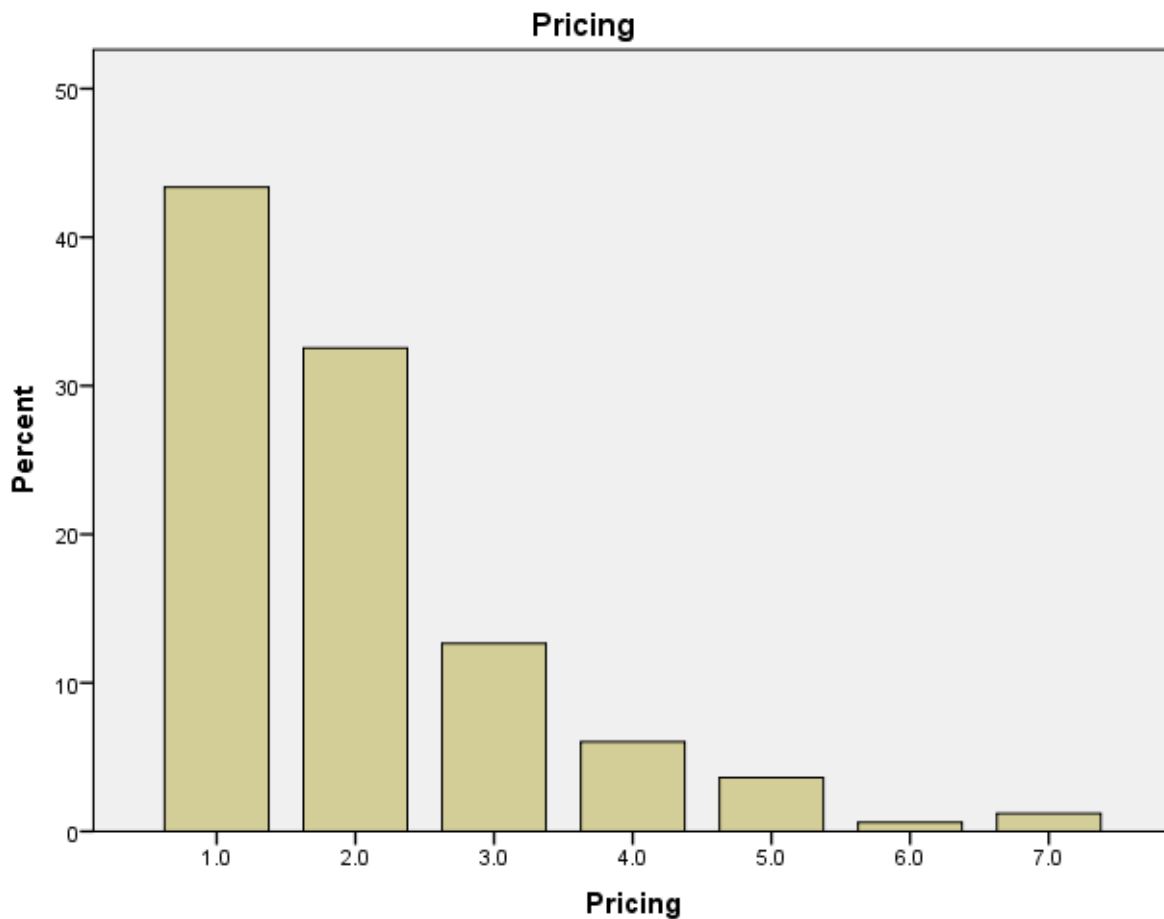
Survey results, with 3.14 average rating, highlight that marketing channels in Cambodia are around the CRM and analytics stages.



5) Pricing

Pricing strategies evolved firstly from cost based and fixed discounts to value-based models; then from rule-based pricing to AI-based and autonomous pricing. Online price transparency also created new competition and business models where e.g. flight and hotel prices are instantly compared with smartphone applications. With IoT and available data, AI based Virtual Assistants will be able to evaluate prices and might even be asking for special discounts in the near future.

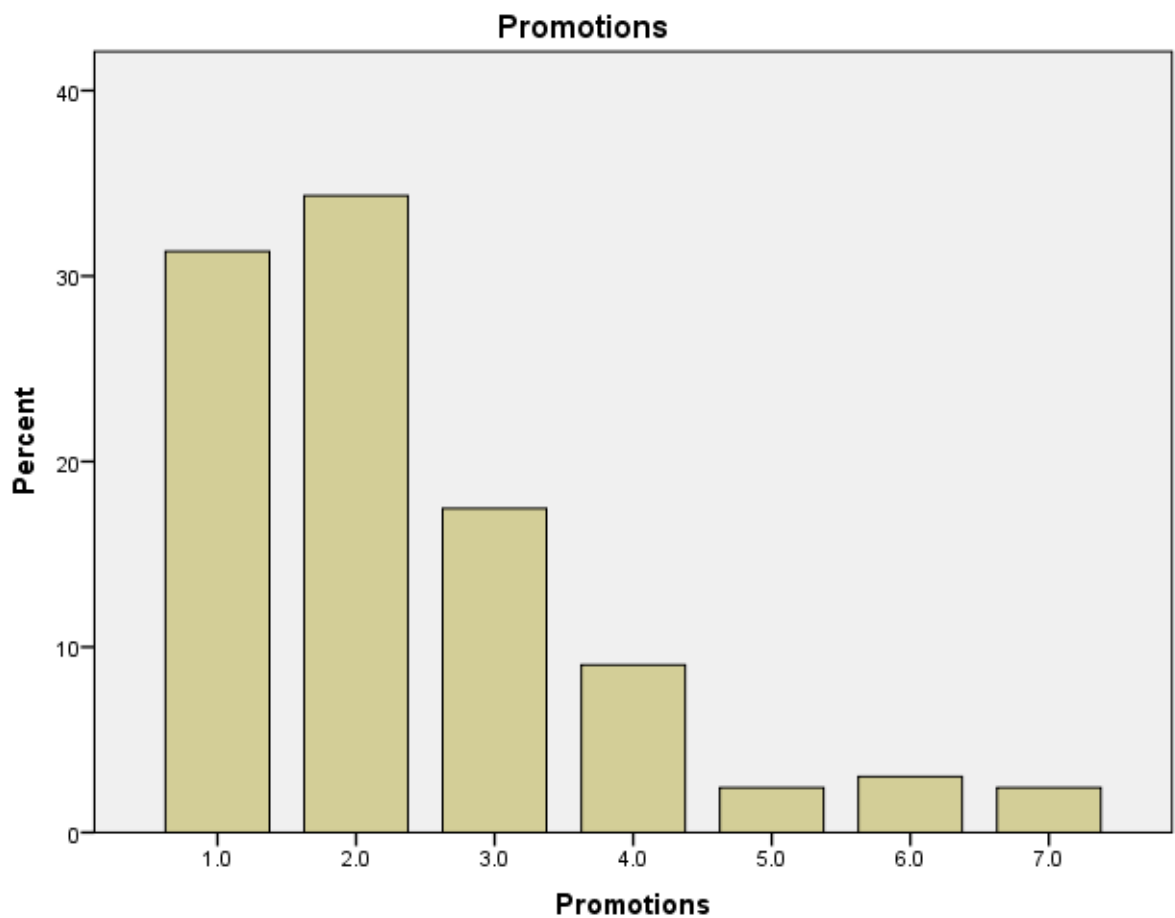
Survey results, with 2.01 average rating, illustrate that pricing in Cambodia is still in early stages and majority of the respondents evaluate it around the 4P stage.



6) Promotions

Mass media and printed promotions converted into digital content with CRM analytics and became Machines-to-Human spam activities. Smart devices with AI might be the new receivers of the upcoming Machine-to-Machine marketing era.

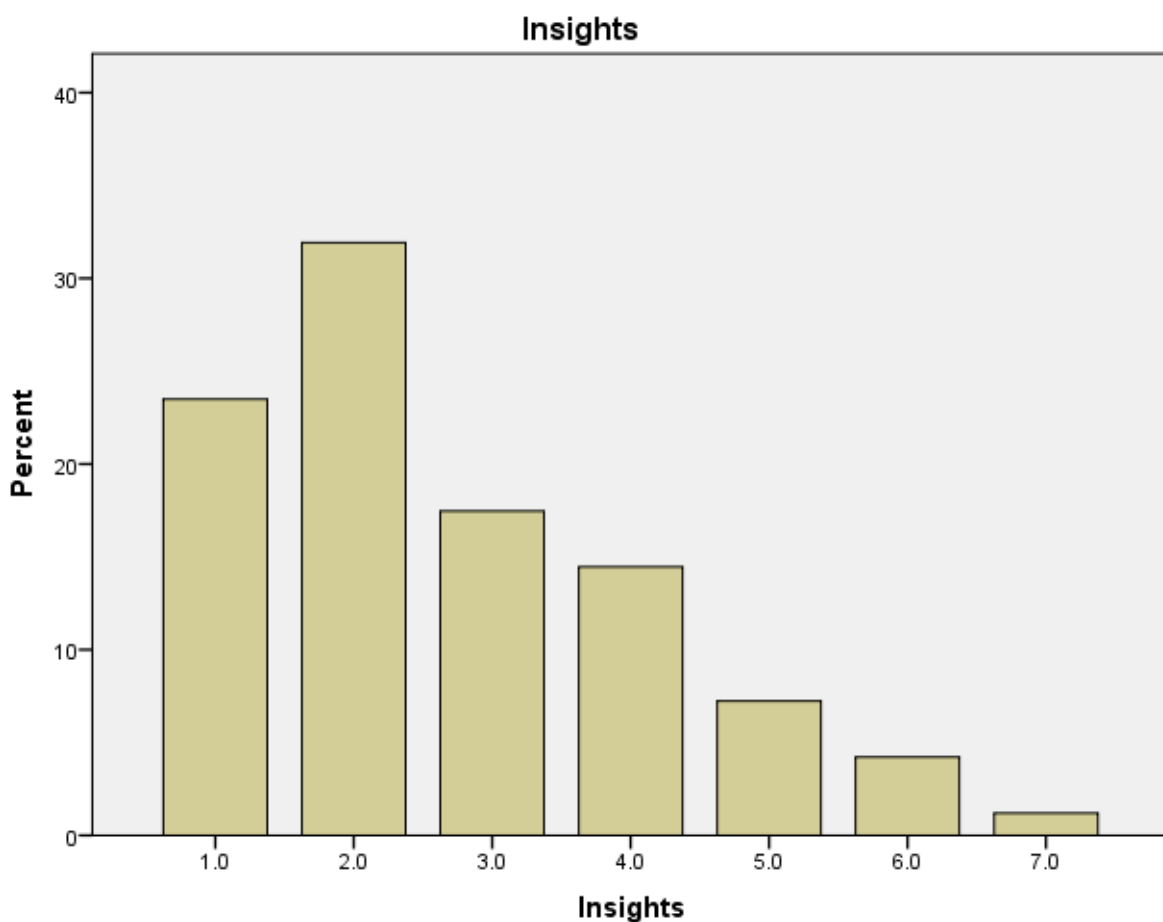
Survey results, with 2.36 average rating, display that promotion activities are still in early stages in Cambodia and majority of the respondents evaluate it between 4P and CRM stages.



7) Insights

Internet analytics and Enterprise Feedback Management systems already translate multichannel customer information into actionable marketing insights, for instance with Search Engine Optimization (SOE) activities. IoT and AI will enrich customer insights exponentially and AI based algorithms will be able to translate insights into autonomous marketing activities and instant offers.

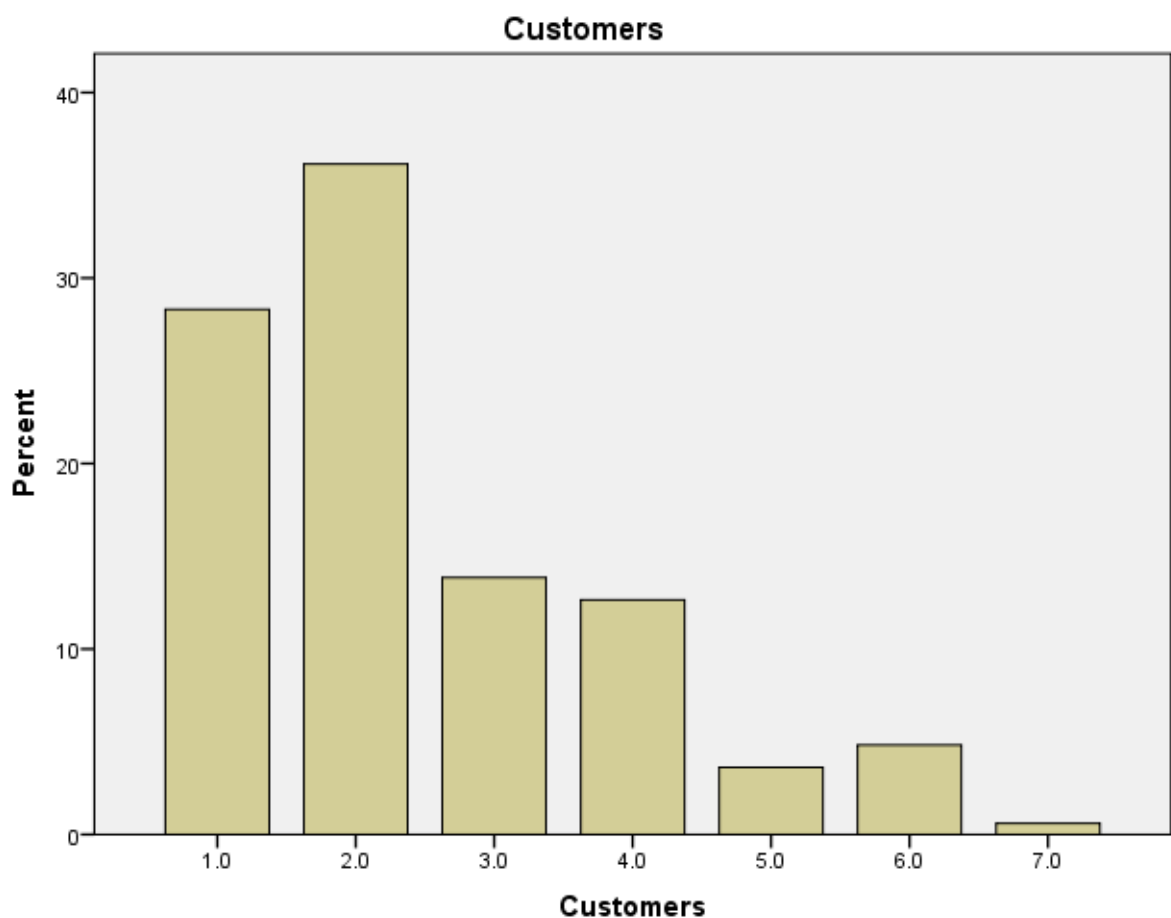
Survey results, with 2.67 average rating, exhibit that marketing insights in Cambodia are developing towards the analytics stage.



8) Customer segments

Customer segments already evolved from geographic and demographic models and became individual digital profiles for behavioral targeting. Internet of Things (IoT) and available data will turn autonomous devices and Virtual Assistants into new customers that are 24/7 available for personalized and dynamic targeting.

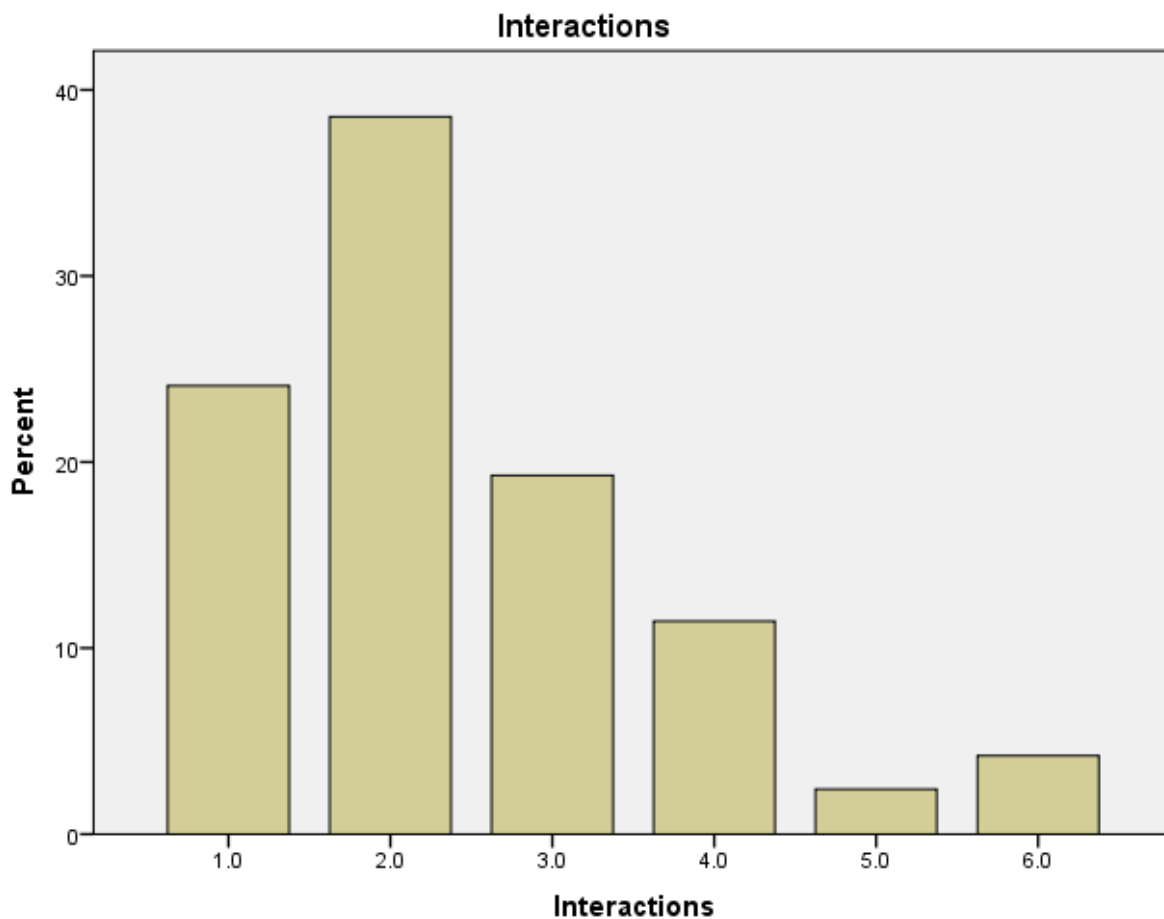
Survey results, with 2.44 average rating, reveal that customer segmentation in Cambodia is still in early stages and majority of the respondents evaluate it between 4P and CRM stages.



9) Interactions

Automated Teller Machines (ATM) of Banks and Interactive Voice Response systems (IVR) of call centers started the Human-to-Machine interactions period; then Machine-to-Human interactions emerged with smart devices and Virtual Assistants. Next period might be Machine-to-Machine interactions among Virtual Service Representatives (VSR) of companies and Virtual Assistants (VA) of consumers.

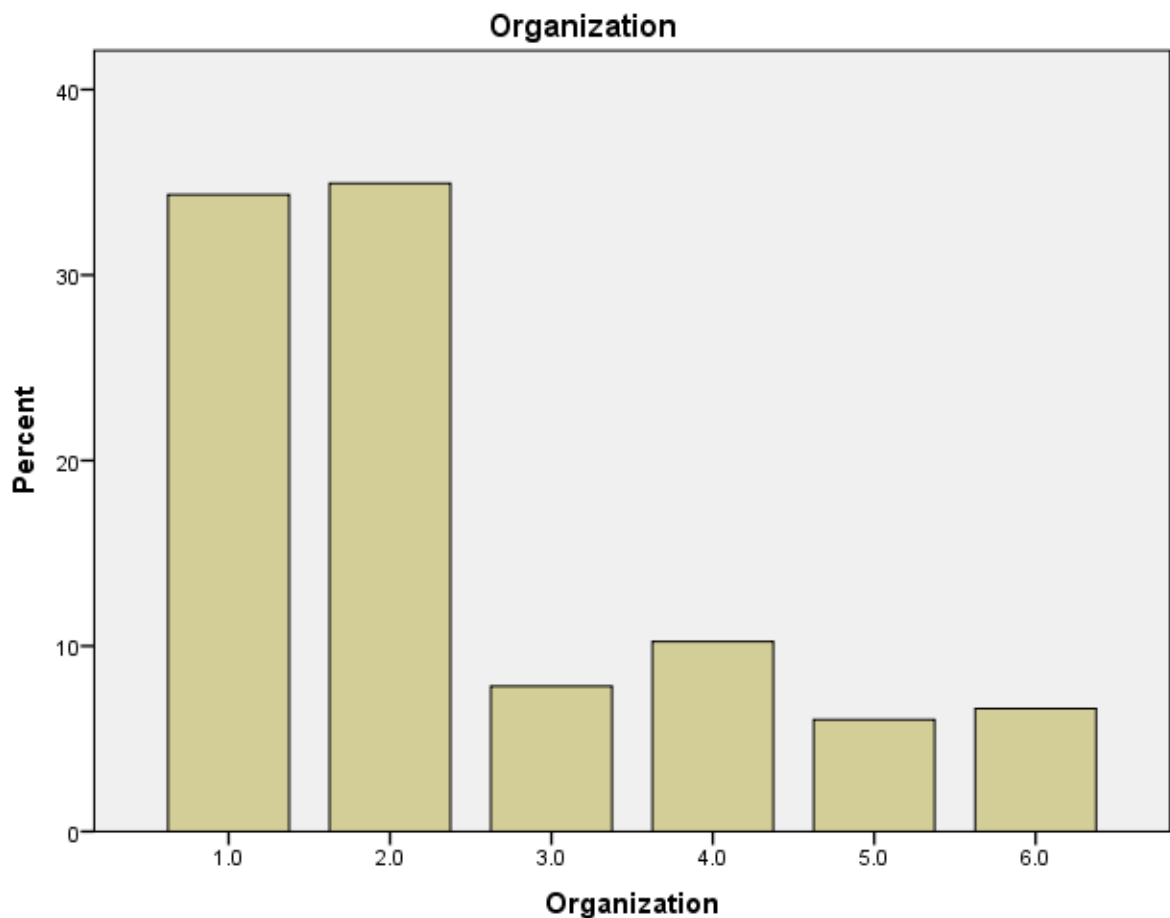
Survey results, with 2.42 average rating, show that marketing interactions in Cambodia are still in early stages and almost half of the respondents evaluate it between 4P and CRM stages.



10) Marketing Organization

Next generation marketing organization must deal with IoT, AI, Autonomous Devices, Machine-to-Machine interactions that will be based on complex scientific rules; and perhaps someday Chief Cognitive Officers will dominate the marketing office.

Survey results, with 2.39 average rating, indicate that marketing organizations in Cambodia is still in early stages and majority of the respondents evaluate it between 4P and CRM stages where marketing and sales managers run the marketing operations.



Conclusions and Managerial Implications

This research briefly described the evolution of marketing in four stages: traditional marketing mix (4P) stage, Customer Relationship Management (CRM) stage, Analytics stage and Artificial Intelligence (AI) stage. Then, 10 marketing topics ranging from marketing strategy to marketing organization are defined within the four stages and tested with an online survey. 133 business school students and 33 business professionals in Cambodia have completed the survey. Results indicated that marketing in Cambodia is in an elementary stage with an average rating of 2.46 on a scale from (1) traditional 4P stage to (7) Artificial Intelligence stage. Furthermore, (almost) no significant differences found between students and business professionals (others) as well as among the length of working experience and involvement with marketing activities.

Business professionals in general and marketing professionals in particular thus should revisit their (digital) marketing maturity levels and their adaptation capabilities to the rapidly changing business environment. It is now utmost important to stay relevant to the digital consumers and to their smart devices; and it is utmost important to redefine marketing in an artificially intelligent age.

Limitations and Further Research

This paper, as a discussion starter, attempted to describe the evolution of marketing in four stages and with 10 marketing topics as a discussion starter. Further research might refine the stages and definitions and revisit the selection of marketing topics to make it more comprehensive for specific market and industries.

In the customer survey, sample group was limited to business school students and a small number of business professionals in Cambodia with their limited exposure to advanced marketing literature and marketing practice. Further research can reach to a wider range of business professionals from different industries and from different countries.

Appendix

Survey Link

<https://goo.gl/forms/t8dYqXVNB5hueMp23>

Analysis of Variance

Differences between students and others

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Focus	Between Groups	1.087	1	1.087	.631	.428
	Within Groups	282.744	164	1.724		
	Total	283.831	165			
Strategy	Between Groups	.212	1	.212	.131	.717
	Within Groups	264.396	164	1.612		
	Total	264.608	165			
Brands	Between Groups	.934	1	.934	.387	.535
	Within Groups	396.301	164	2.416		
	Total	397.235	165			
Channels	Between Groups	.002	1	.002	.001	.977
	Within Groups	390.528	164	2.381		
	Total	390.530	165			
Pricing	Between Groups	1.273	1	1.273	.829	.364
	Within Groups	251.721	164	1.535		
	Total	252.994	165			
Promotions	Between Groups	14.046	1	14.046	7.154	.008
	Within Groups	321.984	164	1.963		
	Total	336.030	165			
Insights	Between Groups	6.655	1	6.655	3.103	.080
	Within Groups	351.779	164	2.145		
	Total	358.434	165			
Customers	Between Groups	10.312	1	10.312	5.308	.022
	Within Groups	318.586	164	1.943		
	Total	328.898	165			
Interactions	Between Groups	.978	1	.978	.604	.438
	Within Groups	265.504	164	1.619		
	Total	266.482	165			
Organization	Between Groups	.280	1	.280	.121	.728
	Within Groups	379.045	164	2.311		
	Total	379.325	165			

Differences between male and females

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Focus	Between Groups	2.848	1	2.848	1.662	.199
	Within Groups	280.983	164	1.713		
	Total	283.831	165			
Strategy	Between Groups	.739	1	.739	.459	.499
	Within Groups	263.869	164	1.609		
	Total	264.608	165			
Brands	Between Groups	4.352	1	4.352	1.817	.180
	Within Groups	392.883	164	2.396		
	Total	397.235	165			
Channels	Between Groups	4.178	1	4.178	1.773	.185
	Within Groups	386.353	164	2.356		
	Total	390.530	165			
Pricing	Between Groups	4.438	1	4.438	2.928	.089
	Within Groups	248.556	164	1.516		
	Total	252.994	165			
Promotions	Between Groups	.010	1	.010	.005	.945
	Within Groups	336.020	164	2.049		
	Total	336.030	165			
Insights	Between Groups	.102	1	.102	.047	.830
	Within Groups	358.332	164	2.185		
	Total	358.434	165			
Customers	Between Groups	8.617	1	8.617	4.413	.037
	Within Groups	320.280	164	1.953		
	Total	328.898	165			
Interactions	Between Groups	.057	1	.057	.035	.852
	Within Groups	266.425	164	1.625		
	Total	266.482	165			
Organization	Between Groups	2.576	1	2.576	1.122	.291
	Within Groups	376.749	164	2.297		
	Total	379.325	165			

Differences in the level of experience

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Focus	Between Groups	12.463	4	3.116	1.849	.122
	Within Groups	271.368	161	1.686		
	Total	283.831	165			
Strategy	Between Groups	1.668	4	.417	.255	.906
	Within Groups	262.940	161	1.633		
	Total	264.608	165			
Brands	Between Groups	16.810	4	4.202	1.778	.136
	Within Groups	380.425	161	2.363		
	Total	397.235	165			
Channels	Between Groups	9.461	4	2.365	.999	.410
	Within Groups	381.069	161	2.367		
	Total	390.530	165			
Pricing	Between Groups	6.210	4	1.553	1.013	.402
	Within Groups	246.784	161	1.533		
	Total	252.994	165			
Promotions	Between Groups	22.449	4	5.612	2.881	.024
	Within Groups	313.581	161	1.948		
	Total	336.030	165			
Insights	Between Groups	28.655	4	7.164	3.497	.009
	Within Groups	329.779	161	2.048		
	Total	358.434	165			
Customers	Between Groups	7.892	4	1.973	.989	.415
	Within Groups	321.006	161	1.994		
	Total	328.898	165			
Interactions	Between Groups	9.633	4	2.408	1.510	.202
	Within Groups	256.849	161	1.595		
	Total	266.482	165			
Organization	Between Groups	10.080	4	2.520	1.099	.359
	Within Groups	369.246	161	2.293		
	Total	379.325	165			

Differences in the level of involvement with marketing

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Focus	Between Groups	5.981	4	1.495	.866	.486
	Within Groups	277.851	161	1.726		
	Total	283.831	165			
Strategy	Between Groups	4.550	4	1.137	.704	.590
	Within Groups	260.059	161	1.615		
	Total	264.608	165			
Brands	Between Groups	13.514	4	3.378	1.418	.230
	Within Groups	383.721	161	2.383		
	Total	397.235	165			
Channels	Between Groups	14.823	4	3.706	1.588	.180
	Within Groups	375.707	161	2.334		
	Total	390.530	165			
Pricing	Between Groups	5.820	4	1.455	.948	.438
	Within Groups	247.174	161	1.535		
	Total	252.994	165			
Promotions	Between Groups	17.386	4	4.346	2.196	.072
	Within Groups	318.644	161	1.979		
	Total	336.030	165			
Insights	Between Groups	9.929	4	2.482	1.147	.337
	Within Groups	348.505	161	2.165		
	Total	358.434	165			
Customers	Between Groups	11.837	4	2.959	1.503	.204
	Within Groups	317.061	161	1.969		
	Total	328.898	165			
Interactions	Between Groups	12.442	4	3.110	1.971	.101
	Within Groups	254.040	161	1.578		
	Total	266.482	165			
Organization	Between Groups	9.319	4	2.330	1.014	.402
	Within Groups	370.006	161	2.298		
	Total	379.325	165			

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