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Standards Projects Update

Finance in Marketing Course
(FMC)

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Chair MASB Advisory Council

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Marketing Accountability Standards Board
of the Marketing Accountability Foundation

FMC Project

Project	**Finance in Marketing Course (FMC)** (Stewart & Bendle)	
Issue Addressed	**Need for an academic course/program spanning disciplines**	**Strategy** **Make it easy to teach the application of financial principles and metrics to marketing students**
Project Objective	**Tools and approach for teaching financial principles in a marketing context**	
Expected Outcome	**Adoption of course design with supporting materials by higher education instructors**	
When	**2018-2019**	

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FMC Milestones (2016 & 2017)
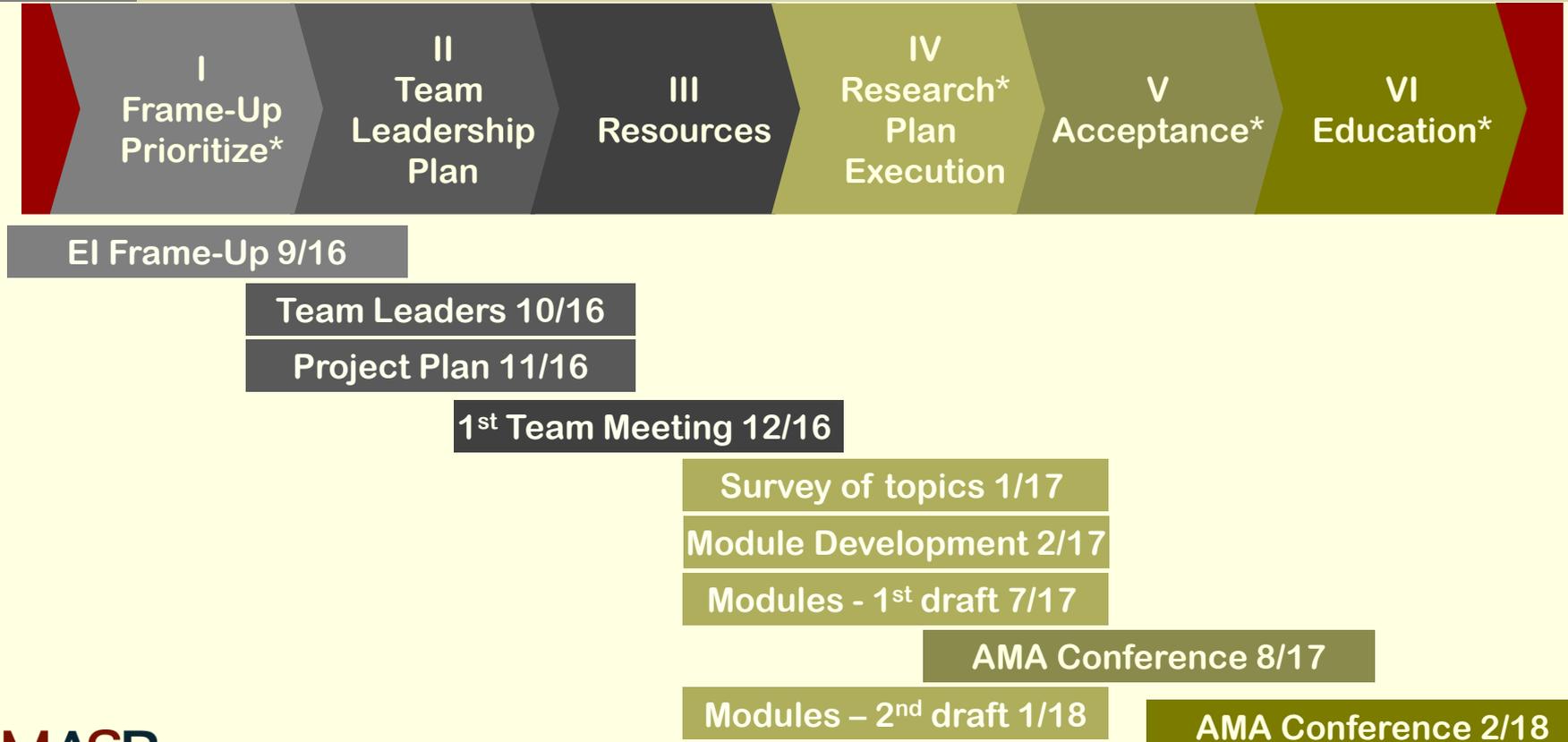
FMC Motivation

- **To better equip Marketers to speak the language of "Finance"**

- **Marketers struggle to communicate with finance → inability to justify budgets & cuts**

- **Our aim:**
  - to support educators in their quest to <u>create & deliver courses</u> to develop students' skills
  - to provide companies with employees <u>better able to work across disciplines</u> & relate marketing expenditures to firm's performance

- **We will:**
  - **Provide standardized product** distributed to business schools
  - **Use Common Language Dictionary**/standard definitions/metrics

FMC Academic Project - Overview

- **License included in MASB Academic Memberships (nominal fee otherwise)**

- **Targeted towards undergraduates in marketing (though valuable for accounting/finance/analytics students)**

- **14 week course, 2 X 80 minute (approx.) classes a week**

- **Lecture-based**
  - **With references to extra materials**
  - **For example, online materials, books, articles, cases**

- **Each class will have hands-on exercises**

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FMC Academic Project - Modules

1. **Intro and Traditional Marketing Metrics**

2. **Traditional Financial Metrics**

3. **Customer Profitability Analysis**

4. **Interface with Management**

5. **Interface with Finance**

We have full versions of slides for each module

Next step is testing and refinement

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Example of Class

**MASB
Finance in Marketing Course**

**Class 10: Multi Period
Assessment**

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Introduction: **Multi-Period Assessment**

- **The benefits to marketing can take effect over a relatively long period of time**
  - **Some marketing may have an instant payoff**
    - **E.g., a charity's direct marketing fundraising piece**
  - **But much marketing aims to bring longer term benefits**
    - **E.g., sponsorship of a local theater group**
- **The problem is that if benefits and costs occur in different times we need to find a way to compare them**
- **How then do we compare projects whose cashflows come and go at different times?**

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Payback period

- **Marketers often use a simple way to assess how a project is expected to perform over time**
  - **Payback Period: The period of time required to recoup the funds expended in an investment.** (Bendle et al. 2015, page 108)
- **Payback period is expressed in units of time**
  - **Can be anything and will depend on the industries/project**
  - **E.g., months, weeks, days, years**
- **Shorter the payback period the better**
  - **Days are better than months which are better than years etc…**

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Calculating Payback Period

- **A marketing investment is $50,000**
- **This generates $5k from the investment* each month**
- **Therefore the payback period is 10 months**
  - **It takes 10 months to return the original funds to the investors**

* In later classes we will explain what we mean by a marketing investment

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Comparing Two Paybacks

- **In a firm two $10k marketing investments are proposed**
- **A firm will only select the investment with the shortest payback period**
  - **Investment A: is expected to generate $2.5k a month for 6 months**
  - **Investment B: is expected to generate $2k a month for 12 months**
- **Which will the firm choose?**
  - **The payback period is 4 months for investment A**
  - **The payback period is 5 months for investment B**
  - **The firm will therefore choose to fund investment A**

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Breakout Discussion

- What do you see as potential problems with using payback period?

Problems with Payback Period

- **Payback period ignores whatever happens after end of the analysis**
  - One investment might take a little longer to reach payback but might be a lot more valuable in the long term
  - In the previous example investment B returned $24k ($2k per month * 12 months)
  - Whereas investment A returned only $15k ($2.5k per month * 6 months)
  - The money coming in during months 7-12 didn't make any difference to the decision yet surely this should matter
- **Projections may always be incorrect**
  - But what else can be done about this?
  - Always use your best estimates but don't prevent lack of complete certainty stop you from acting

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Cash Today & Cash Tomorrow

- A basic financial reality is that cash today is better than cash tomorrow

- In most normal circumstance if you have cash today you can find a positive interest investment which will increase the amount you have tomorrow

- This means the same amount of cash today in currency terms, e.g., $5 or €100, is worth more than the same amount of cash tomorrow, e.g., $5 or €100
    - $5 today>$5 tomorrow

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Real and Nominal Amounts

- **Given this economists talk about real & nominal value of currency**
  - **The nominal value of currency is the amount shown on the bill**
    - **e.g., a twenty dollar bill is worth $20 whatever $20 will buy you when you shop**
- **What a given bill will buy however changes over time**
  - **Thus the idea of a real value -- which is what the money can buy**
  - **A twenty dollar bill next year may only by the equivalent of say $19.90 this year**
  - **The future bill is worth $19.90 in real terms**

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Discount Factor

- **To make cash received at different times comparable it is commonly discounted**
  - **$X at a later time is converted into an equivalent amount in an earlier period**
  - **This is done by multiplying it by a discount factor (DF), which is less than 1**
- **So $100 cash next year is equivalent to DF*$100 cash today**
  - **Let us assume the discount factor is 90%**
  - **So $100 next year = DF*$100 = $90 now**

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Discount Rate

- **To see how much in equivalent terms cash received today compares to cash received tomorrow it is necessary to use a discount rate**
  - **If you have $x today what must you have tomorrow to have the equivalent wealth?**
  - **You must have extra by r so $x (1+r) where r is the discount rate**
  - **So if you have $100 today with a 1% daily discount rate means you must have $100*(1+.01)=$101 to have the same wealth tomorrow**

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Rates and Multiple Periods

- **Discount rates are expressed over a period, e.g., daily, weekly, monthly**
  - Annual discount rate is the most typical period for a discount rate
- **So what if we are assessing changes over more than one period?**
- **We use the same discount rate many times**
  - In math lingo it is an exponent and so this type of discounting -- using the same rate used across many periods -- is known as exponential discounting

Discounting Using Rates

- **To compare a certain amount of cash today with cash in a later period we need to know the amount of cash ($X), the discount rate (r), and the number of the period (t)**
  - **The formula to use is $x (1+r)^t**
  - **With t being the exponent**
- **Given r (is inevitably) greater than 0 the larger the time period the larger the amount of cash you need in the future to be as wealthy as you are today**

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Calculating Using Rates

- **A firm has $200,000 and uses a discount rate of 10%**
- **What is the equivalent amount of money in 1 year, 2 years, 3 years, 10 years?**
- **What pattern do you see?**

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Applying Discount Rates

	Discount Rate (r)	10%
When	**Value**	**Formula**
Today ($X)	$200,000	$X
Year 1	$220,000	$X(1+r)^1
Year 2	$242,000	$X(1+r)^2
Year 3	$266,200	$X(1+r)^3
Year 10	$518,748	$X(1+r)^10

- **Using exponential discounting the necessary increase each period is greater in dollar terms**

- **Relatively modest discount rates can create very large numbers over time**

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Comparing DF and DR

- **There is a relationship between discount rates & discount factors**
  - **Put simply higher discount rates equate to lower discount factors**

Discount rate	Now	Year 1	Year 2	Year 3
5%	$ 10,000	$ 10,500	$ 11,025	$ 11,576.25
Discount Factor	1	95.2%	90.7%	86.4%
Equivalent Now	$ 10,000	$ 10,000	$ 10,000	$ 10,000.00

Discount rate	Now	Year 1	Year 2	Year 3
10%	$ 10,000	$ 11,000	$ 12,100	$ 13,310
Discount Factor	1	90.9%	82.6%	75.1%
Equivalent Now	$ 10,000	$ 10,000	$ 10,000	$ 10,000

Discount rate	Now	Year 1	Year 2	Year 3
20%	$ 10,000	$ 12,000	$ 14,400	$ 17,280
Discount Factor	1	83.3%	69.4%	57.9%
Equivalent Now	$ 10,000	$ 10,000	$ 10,000	$ 10,000

Formula Discount Factor → Rate

- **A discount factor can simply be calculated for any discount rate**

- **Discount Factor (DF) =** $\dfrac{1}{(1+r)^t}$

- **So a 10% discount rate over 1 year is a discount factor of**

  - **DF =** $\dfrac{1}{(1+.1)^1}$**=0.909**

- **A 10% discount rate over 5 years is a discount factor of**

  - **DF =** $\dfrac{1}{(1+.1)^5}$**=0.621**

Setting a Discount Rate

- **Given its importance one might think that a lot of thought goes into setting discount rates**

- **This is often <u>not</u> the case**

- **Discount rates can often be a standard across the company and do nor change much over time**
  - **Clearly having a simple, discount rate that doesn't change considerably aids ease of calculation**
  - **10% is often given in examples, mostly because the math is easy**

- **Given computing power is now cheap and easy there isn't really a good reason to use overly simple discount rates**

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What Should Impact Discount Rates?

- **The cost of capital to the firm**
  - I.e. what the firm pays to acquire funds
  - Capital will be acquired through borrowing where an interest rate is paid
  - or as an expected return to the owners of the firm who have invested the equity (known as "return on equity")
- **The general economy (what may be termed the "macro-economic" environment)**
  - E.g., when inflation is high the value of cash declines at a quicker rate meaning you need more tomorrow to have the equivalent to what you have today
- **Risk: Greater uncertainty about returns means more will be expected tomorrow**

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The Implications

- **Different companies should have different discount rates**
  - A stable company with predictable cashflows can have relatively low discount rates
  - A start-up with an uncertain future will need to pay a lot to borrow/return to the owners and so uses high discount rates
- **Different projects should have different discount rates**
  - Risky projects must return more to be the equivalent to safe projects

Breakout Discussion

- **What challenges do you see with discounting?**

Problems with Discounting

- **Setting the correct rate**
  - **This is extremely tricky**
  - **There is no objectively correct rate**
- **Explaining the method**
  - **Some colleagues may not understand the approach**
  - **Finance people have this problem with many marketers (but not you now that you have taken this course)**
- **Projecting the future is fraught with challenges**
  - **Often our projections are incorrect**

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Impatience

- **Human beings tend to be impatient making the idea of constant discount rates often problematic**

- **A constant discount rate means the difference (in % terms) between today and next year is the same as between next year and the year after**

- **This isn't how people think**

- **People usually see a bigger difference between now and later, compared to the difference between later and even later**
  - **"later" & "even later" seem similar to us as both times aren't now**

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Hyperbolic Discounting

- **This leads some to use what is known as hyperbolic (or even quasi-hyperbolic) discounting**
  - **These terms just mean the difference between now and later is relatively bigger than the difference between later and even later**
- **This often explains how consumers discount the value of what you are offering over time**
  - **The implication is to ensure consumer get early rewards as they don't like waiting**

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Formula Assuming Impatience

- **To represent impatience one can discount more heavily in the first period**
    - **Use r for discount rate and**
    - **β for an extra one-off discount in the first period**
- **The value of a future cashflow is discounted by the extra discount in the first period**
    - **β is a one-off so separate from normal discount rates, i.e. it isn't influenced by the exponent**
- **Relative value of $Z in future (given impatience)**
    - $\$Z \; \beta \times (1+r)^t$

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Comparing Patient & Impatient

Value of future cashflows seems a lot less when using impatient discounting

Discount rate 10%

Patient	Now	Year 1	Year 2	Year 3
Discount Factor Formula	1	=1/((1+r)^1)	=1/((1+r)^2)	=1/((1+r)^3)
Discount Factor	1	90.9%	82.6%	75.1%
$100 today feels like	$100.00	$90.91	$82.64	$75.13

Impatient (Extra β)	Now	Year 1	Year 2	Year 3
Discount Factor Formula (with impatience, β=.9)	1	=0.9*1/((1+r)^1)	=0.9*1/((1+r)^2)	=0.9*1/((1+r)^3)
Discount Factor (with impatience, β=.9)	1	81.8%	74.4%	67.6%
$100 today feels like	$100.00	$81.82	$74.38	$67.62

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Summary

- **Comparing cashflows over time is challenging**
- **Many marketers use payback period**
  - **Using a payback period can be useful as simple rule of thumb but the approach has very significant challenges**
- **Discounting is generally preferable but also has challenges**
  - **Not least setting the correct discount rate**
  - **& it also often does not well represent how people react**

Thank-you!

FMC Professional Course- NEW!

- **Online certification course for practitioners**
  - **Targeted towards managers/directors in marketing, finance, analytics, accounting**

- **Use Forbes/Stephen Diorio approach to online training**
  - **Smaller modules with 5-to-15 minute parts to fit busy schedules**
  - **Quizzes leading to certificate of completion**

Vision: Create a basic set of knowledge about accountability that every competent marketer should have

Job Interview 2025: Are you a MASB certified accountable marketer?

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Next Steps

- **Test course (Fall 2018)**

- **Write accompanying teaching notes**

- **We will need assistance publicising course**
  - **Journals**
  - **Schools**
  - **Teachers**
  - **Employers with strong higher ed connections**
- **Will reach out through social media**

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Call to Action: What do we need you to do?

- **If you are a practitioner?** **Give us cases**
  - **We need examples of accountable marketing in real-world situations**
    - **Have you valued customers?**
    - **How have you used brand valuations?**
    - **Did you avoid any mistakes through your use of metrics?**
    - **Other good (or even bad news) stories**
  - **An ideal case involves a named company, but if necessary can anonymize**

- **If you teach marketing?** **Volunteer to test the course**
  - **We need professors who will beta test the entire course (or a module)**

- **If you teach and are a practitioner? Give us cases and test the course**

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Thank-you!